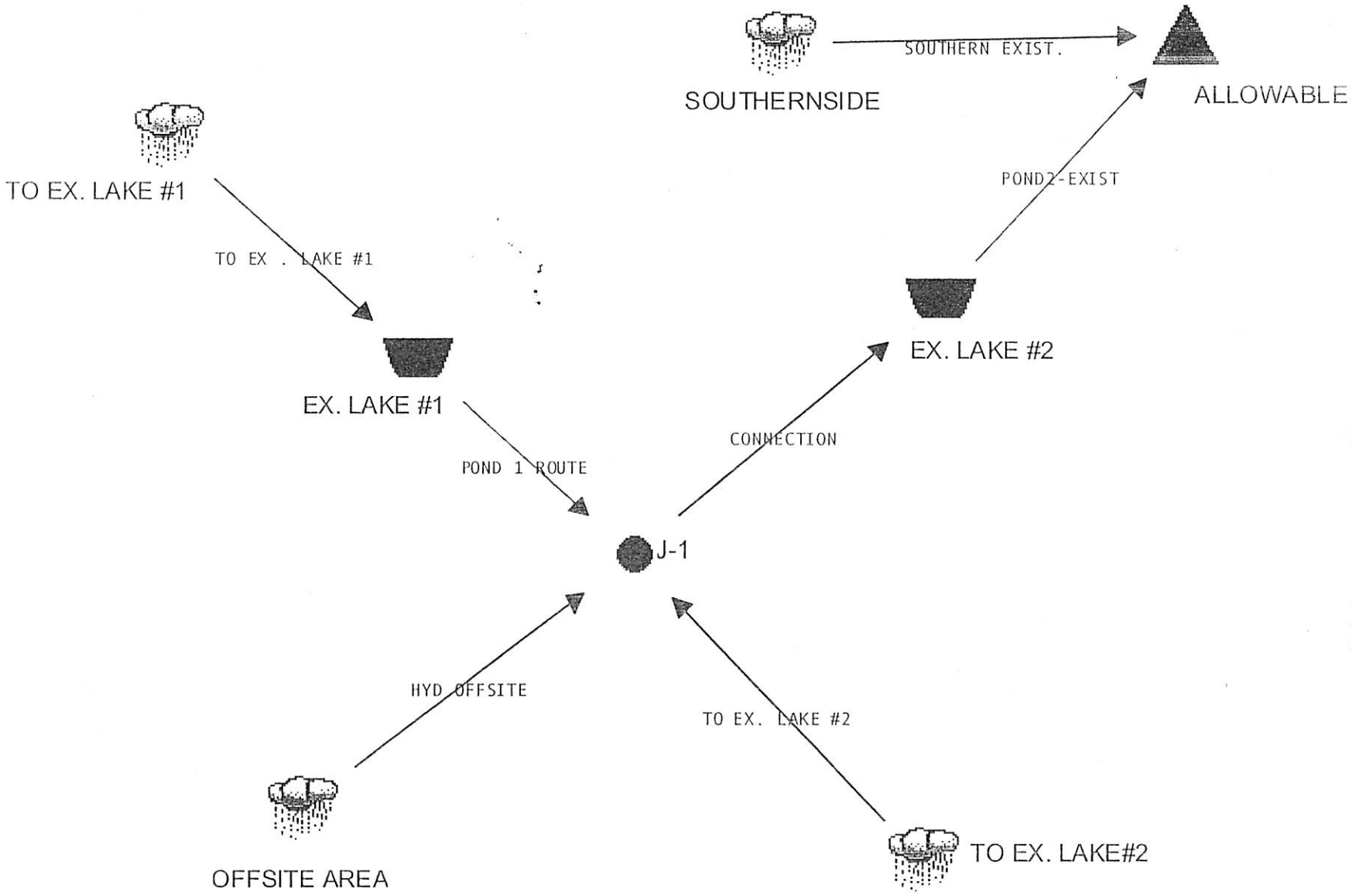
P.O.I. #3
Ex.


SOUTHERN EXIST.
SOUTHERNSIDE
ALLOWABLE
TO EX. LAKE #1
TO EX . LAKE #1
POND2-EXIST
EX. LAKE #2
EX. LAKE #1
CONNECTION
POND 1 ROUTE
J-1
HYD OFFSITE
TO EX. LAKE #2
OFFSITE AREA
TO EX. LAKE#2

MASTER DESIGN STORM SUMMARY

Default Network Design Storm File, ID EXPERSMN.RNQ EX-STORMS

Return Event	Total Depth in	Rainfall Type	RNF File	RNF ID
Pre..2	3.5000	Synthetic Curve	SCSTYPES	TypeII 24hr
Pre.15	5.2000	Synthetic Curve	SCSTYPES	TypeII 24hr
Pre.25	5.7000	Synthetic Curve	SCSTYPES	TypeII 24hr
Pre100	7.2000	Synthetic Curve	SCSTYPES	TypeII 24hr

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond Storage ac-ft
*ALLOWABLE	JCT	2	10.665		13.8000	22.32		
*ALLOWABLE	JCT	15	22.621		13.5000	57.24		
*ALLOWABLE	JCT	25	26.498		13.3000	73.09		
*ALLOWABLE	JCT	100	38.775		13.0000	122.00		
EX. LAKE #1 IN	POND	2	1.301		12.4000	8.80		
EX. LAKE #1 IN	POND	15	2.975		12.3000	22.78		
EX. LAKE #1 IN	POND	25	3.530		12.3000	27.46		
EX. LAKE #1 IN	POND	100	5.308		12.3000	42.35		
EX. LAKE #1 OUT	POND	2	1.301		13.0000	3.45	551.46	.321
EX. LAKE #1 OUT	POND	15	2.975		13.3000	5.61	551.99	1.083
EX. LAKE #1 OUT	POND	25	3.530		13.3000	6.05	552.13	1.370
EX. LAKE #1 OUT	POND	100	5.308		13.5000	7.32	552.57	2.338
EX. LAKE #2 IN	POND	2	10.222		12.7000	38.73		
EX. LAKE #2 IN	POND	15	21.568		12.5000	88.11		
EX. LAKE #2 IN	POND	25	25.240		12.5000	104.19		
EX. LAKE #2 IN	POND	100	36.856		12.5000	154.58		
EX. LAKE #2 OUT	POND	2	10.222		13.9000	21.83	523.11	2.487
EX. LAKE #2 OUT	POND	15	21.568		13.5000	56.02	524.47	5.465
EX. LAKE #2 OUT	POND	25	25.240		13.3000	71.51	524.65	5.917

MASTER NETWORK SUMMARY
SCS Unit Hydrograph Method

(*Node=Outfall; +Node=Diversion;)
(Trun= HYG Truncation: Blank=None; L=Left; R=Rt; LR=Left&Rt)

Node ID	Type	Return Event	HYG Vol ac-ft	Trun	Qpeak hrs	Qpeak cfs	Max WSEL ft	Max Pond Storage ac-ft
EX. LAKE #2 OUT	POND	100	36.856		13.0000	119.06	525.13	7.098
J-1	JCT	2	10.222		12.7000	38.73		
J-1	JCT	15	21.568		12.5000	88.11		
J-1	JCT	25	25.240		12.5000	104.19		
J-1	JCT	100	36.856		12.5000	154.58		
OFFSITE AREA	AREA	2	5.793		13.0000	23.01		
OFFSITE AREA	AREA	15	11.304		13.0000	46.62		
OFFSITE AREA	AREA	25	13.035		13.0000	53.96		
OFFSITE AREA	AREA	100	18.411		13.0000	76.55		
SOUTHERNSIDE	AREA	2	.443		12.2000	4.21		
SOUTHERNSIDE	AREA	15	1.053		12.1000	11.59		
SOUTHERNSIDE	AREA	25	1.258		12.1000	14.09		
SOUTHERNSIDE	AREA	100	1.919		12.1000	22.12		
TO EX. LAKE #1	AREA	2	1.301		12.4000	8.80		
TO EX. LAKE #1	AREA	15	2.975		12.3000	22.78		
TO EX. LAKE #1	AREA	25	3.530		12.3000	27.46		
TO EX. LAKE #1	AREA	100	5.308		12.3000	42.35		
TO EX. LAKE#2	AREA	2	3.127		12.4000	19.41		
TO EX. LAKE#2	AREA	15	7.288		12.4000	51.90		
TO EX. LAKE#2	AREA	25	8.676		12.4000	62.70		
TO EX. LAKE#2	AREA	100	13.138		12.4000	97.16		

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... SOUTHERNSIDE - EXISTING TIME OF CONCENTRATION

::
TIME OF CONCENTRATION CALCULATOR
::

SOUTHERNSIDE - EXISTING TIME OF CONCENTRATION

Segment #1: Tc: TR-55 Sheet
Description: SEGMENT 'A'

Mannings n	.2400
Hydraulic Length	300.00 ft
2yr, 24hr P	3.5000 in
Slope	.060000 ft/ft
Avg.Velocity	.24 ft/sec

Segment #1 Time: .3529 hrs

Segment #2: Tc: TR-55 Shallow
Description: SEGMENT 'B'

Hydraulic Length	508.00 ft
Slope	.073200 ft/ft
Unpaved	
Avg.Velocity	4.37 ft/sec

Segment #2 Time: .0323 hrs

==========
Total Tc: .3852 hrs
==========

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... OFFSITE TIME OF CONCENTRATION

::
TIME OF CONCENTRATION CALCULATOR
::

OFFSITE TIME OF CONCENTRATION

Segment #1: Tc: TR-55 Sheet
Description: SEGMENT 'A'

Mannings n	.2400
Hydraulic Length	300.00 ft
2yr, 24hr P	3.5000 in
Slope	.010000 ft/ft
Avg.Velocity	.12 ft/sec

Segment #1 Time: .7227 hrs

Segment #2: Tc: TR-55 Shallow
Description: SEGMENT 'B'

Hydraulic Length	750.00 ft
Slope	.005300 ft/ft
Unpaved	
Avg.Velocity	1.17 ft/sec

Segment #2 Time: .1774 hrs

Segment #3: Tc: SCS Lag
Description: SEGMENT'C'

Hydraulic Length	1650.00 ft
Runoff CN	77
Slope	.010000 ft/ft
Avg.Velocity	.53 ft/sec

Segment #3 Time: .8658 hrs

==========
Total Tc: 1.7659 hrs
==========

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... AREA TO EX. LAKE #1 - Tc

TIME OF CONCENTRATION CALCULATOR

AREA TO EX. LAKE #1 - Tc

Segment #1: Tc: TR-55 Sheet
Description: SEGMENT 'A'

Mannings n	.2400	
Hydraulic Length	300.00	ft
2yr, 24hr P	3.5000	in
Slope	.043300	ft/ft
Avg.Velocity	.21	ft/sec

Segment #1 Time: .4021 hrs

Segment #2: Tc: SCS Lag
Description: SEGMENT 'B'

Hydraulic Length	725.00	ft
Runoff CN	67	
Slope	.035900	ft/ft
Avg.Velocity	.64	ft/sec

Segment #2 Time: .3123 hrs

Total Tc: .7144 hrs

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... SEGMENT 'A'

::
TIME OF CONCENTRATION CALCULATOR
::

SEGMENT 'A'

Segment #1: Tc: TR-55 Sheet
Description: SEGMENT 'A'

Mannings n	.2400	
Hydraulic Length	300.00	ft
2yr, 24hr P	3.5000	in
Slope	.050000	ft/ft
Avg.Velocity	.22	ft/sec

Segment #1 Time: .3796 hrs

Segment #2: Tc: TR-55 Shallow
Description: SEGMENT 'B'

Hydraulic Length	678.00	ft
Slope	.053600	ft/ft
Unpaved		
Avg.Velocity	3.74	ft/sec

Segment #2 Time: .0504 hrs

Segment #3: Tc: SCS Lag
Description: SEGMENT 'C'

Hydraulic Length	485.00	ft
Runoff CN	66	
Slope	.016500	ft/ft
Avg.Velocity	.39	ft/sec

Segment #3 Time: .3429 hrs

==========
Total Tc: .7729 hrs
==========

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... SOUTHERNSIDE - EXISTING CN

RUNOFF CURVE NUMBER DATA

SOUTHERNSIDE - EXISTING CN

Soil/Surface Description	CN	Area acres	Impervious Adjustment %C	%UC	Adjusted CN
PASTURE (SOIL GROUP 'C')	74	2.300			74.00
PASTURE (SOIL GROUP 'B')	61	4.770			61.00
COMPOSITE AREA & WEIGHTED CN --->		7.070			65.23 (65)

S/N: 721701406A81 J R GRIMES CONSULTING
PondPack Ver: 7.5 (767) Compute Time: 16:38:53 Date: 08-06-2002

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... OFFSITE RUNOFF CN

RUNOFF CURVE NUMBER DATA

OFFSITE RUNOFF CN

Soil/Surface Description	CN	Area acres	Impervious Adjustment %C	%UC	Adjusted CN
EXISTING WOODS(SOIL GROUP 'D')	77	48.600			77.00
COMPOSITE AREA & WEIGHTED CN --->		48.600			77.00 (77)

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING CN

RUNOFF CURVE NUMBER DATA

EXISTING CN

Soil/Surface Description	CN	Area acres	Impervious Adjustment %C	%UC	Adjusted CN
PASTURE (SOIL GROUP 'C')	74	8.250			74.00
PASTURE (SOIL GROUP 'B')	61	10.110			61.00
COMPOSITE AREA & WEIGHTED CN --->		18.360			66.84 (67)

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... AREA IV - EXISTING CN

RUNOFF CURVE NUMBER DATA

AREA IV - EXISTING CN

Soil/Surface Description	CN	Area acres	Impervious Adjustment %C	%UC	Adjusted CN
PASTURE (SOIL GROUP 'C')	74	19.370			74.00
PASTURE (SOIL GROUP 'B')	61	27.530			61.00
COMPOSITE AREA & WEIGHTED CN --->		46.900			66.37 (66)

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre..2
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77

==========
Computational Time Increment = .23545 hrs
Computed Peak Time = 12.9497 hrs
Computed Peak Flow = 23.08 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 13.0000 hrs
Peak Flow, Interpolated Output = 23.01 cfs
==========

DRAINAGE AREA

ID:OFFSITE AREA
CN = 77
Area = 48.600 acres
S = 2.9870 in
0.2S = .5974 in

Cumulative Runoff

1.4305 in
5.794 ac-ft

HYG Volume... 5.793 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = 1.76586 hrs (ID: OFFSITE AREA)
Computational Incr, Tm = .23545 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 31.18 cfs
Unit peak time Tp = 1.17724 hrs
Unit receding limb, Tr = 4.70897 hrs
Total unit time, Tb = 5.88621 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre..2
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77
Calc.Increment= .23545 hrs Out.Incr.= .1000 hrs
HYG Volume = 5.793 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
9.9000	.00	.00	.00	.01	.01
10.4000	.02	.04	.05	.08	.10
10.9000	.14	.19	.24	.31	.38
11.4000	.50	.61	.85	1.17	1.69
11.9000	2.79	3.89	5.85	7.88	10.37
12.4000	13.22	15.95	18.23	20.51	21.65
12.9000	22.60	23.01	22.87	22.62	21.69
13.4000	20.77	19.42	17.97	16.60	15.32
13.9000	14.08	13.11	12.14	11.34	10.59
14.4000	9.89	9.26	8.63	8.14	7.65
14.9000	7.23	6.83	6.47	6.16	5.84
15.4000	5.60	5.35	5.14	4.94	4.75
15.9000	4.58	4.42	4.28	4.13	4.00
16.4000	3.88	3.77	3.66	3.56	3.46
16.9000	3.37	3.29	3.21	3.13	3.06
17.4000	2.99	2.92	2.86	2.81	2.76
17.9000	2.72	2.68	2.64	2.61	2.57
18.4000	2.53	2.50	2.47	2.44	2.40
18.9000	2.37	2.34	2.31	2.28	2.25
19.4000	2.22	2.19	2.16	2.13	2.10
19.9000	2.07	2.04	2.01	1.98	1.95
20.4000	1.92	1.89	1.87	1.84	1.82
20.9000	1.79	1.77	1.75	1.73	1.71
21.4000	1.70	1.68	1.67	1.65	1.64
21.9000	1.63	1.62	1.61	1.60	1.59
22.4000	1.59	1.58	1.57	1.56	1.56
22.9000	1.55	1.54	1.54	1.53	1.52
23.4000	1.52	1.51	1.51	1.50	1.49
23.9000	1.49	1.48	1.47	1.45	1.42
24.4000	1.39	1.35	1.28	1.22	1.14
24.9000	1.05	.96	.87	.77	.69
25.4000	.60	.53	.46	.40	.35

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre.15
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77

==========
Computational Time Increment = .23545 hrs
Computed Peak Time = 12.9497 hrs
Computed Peak Flow = 46.92 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 13.0000 hrs
Peak Flow, Interpolated Output = 46.62 cfs
==========

DRAINAGE AREA

ID:OFFSITE AREA
CN = 77
Area = 48.600 acres
S = 2.9870 in
0.2S = .5974 in

Cumulative Runoff

2.7912 in
11.304 ac-ft

HYG Volume... 11.304 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = 1.76586 hrs (ID: OFFSITE AREA)
Computational Incr, Tm = .23545 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 31.18 cfs
Unit peak time Tp = 1.17724 hrs
Unit receding limb, Tr = 4.70897 hrs
Total unit time, Tb = 5.88621 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre.15
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77
Calc.Increment= .23545 hrs Out.Incr.= .1000 hrs
HYG Volume = 11.304 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
8.0000	.00	.00	.00	.01	.01
8.5000	.02	.03	.04	.06	.08
9.0000	.11	.14	.17	.21	.26
9.5000	.31	.36	.41	.48	.54
10.0000	.61	.68	.76	.85	.94
10.5000	1.04	1.15	1.28	1.41	1.56
11.0000	1.73	1.91	2.14	2.36	2.67
11.5000	2.99	3.59	4.35	5.54	7.86
12.0000	10.18	14.18	18.33	23.28	28.86
12.5000	34.15	38.40	42.66	44.59	46.15
13.0000	46.62	46.01	45.18	43.06	40.95
13.5000	38.09	35.03	32.17	29.55	26.99
14.0000	25.04	23.08	21.45	19.95	18.54
14.5000	17.28	16.03	15.07	14.11	13.27
15.0000	12.50	11.78	11.18	10.57	10.09
15.5000	9.62	9.21	8.83	8.46	8.15
16.0000	7.84	7.57	7.30	7.06	6.83
16.5000	6.61	6.42	6.23	6.06	5.89
17.0000	5.73	5.59	5.44	5.31	5.18
17.5000	5.06	4.95	4.85	4.77	4.69
18.0000	4.62	4.55	4.49	4.43	4.36
18.5000	4.30	4.24	4.19	4.13	4.07
19.0000	4.02	3.97	3.91	3.86	3.80
19.5000	3.75	3.70	3.65	3.59	3.54
20.0000	3.49	3.44	3.39	3.34	3.29
20.5000	3.24	3.19	3.14	3.10	3.06
21.0000	3.02	2.98	2.95	2.92	2.89
21.5000	2.86	2.84	2.82	2.80	2.78
22.0000	2.76	2.74	2.73	2.71	2.70
22.5000	2.68	2.67	2.66	2.64	2.63
23.0000	2.62	2.61	2.60	2.59	2.58
23.5000	2.56	2.55	2.54	2.53	2.52

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre.25
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77

==========
Computational Time Increment = .23545 hrs
Computed Peak Time = 12.9497 hrs
Computed Peak Flow = 54.34 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 13.0000 hrs
Peak Flow, Interpolated Output = 53.96 cfs
==========

DRAINAGE AREA

ID:OFFSITE AREA
CN = 77
Area = 48.600 acres
S = 2.9870 in
0.2S = .5974 in

Cumulative Runoff

3.2185 in
13.035 ac-ft

HYG Volume... 13.035 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = 1.76586 hrs (ID: OFFSITE AREA)
Computational Incr, Tm = .23545 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 31.18 cfs
Unit peak time Tp = 1.17724 hrs
Unit receding limb, Tr = 4.70897 hrs
Total unit time, Tb = 5.88621 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre.25
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77
Calc.Increment= .23545 hrs Out.Incr.= .1000 hrs
HYG Volume = 13.035 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
7.5000	.00	.00	.00	.01	.01
8.0000	.02	.03	.04	.06	.08
8.5000	.10	.12	.15	.19	.23
9.0000	.27	.32	.38	.44	.50
9.5000	.57	.64	.71	.79	.87
10.0000	.96	1.05	1.15	1.26	1.37
10.5000	1.49	1.62	1.78	1.94	2.13
11.0000	2.33	2.55	2.82	3.09	3.47
11.5000	3.85	4.56	5.46	6.86	9.57
12.0000	12.27	16.91	21.71	27.42	33.83
12.5000	39.90	44.75	49.60	51.77	53.49
13.0000	53.96	53.19	52.17	49.67	47.18
13.5000	43.83	40.28	36.95	33.91	30.95
14.0000	28.68	26.42	24.53	22.79	21.16
14.5000	19.72	18.28	17.17	16.06	15.10
15.0000	14.21	13.38	12.69	11.99	11.44
15.5000	10.90	10.43	9.99	9.58	9.22
16.0000	8.86	8.55	8.25	7.97	7.71
16.5000	7.46	7.24	7.02	6.83	6.64
17.0000	6.46	6.29	6.13	5.98	5.83
17.5000	5.70	5.57	5.46	5.37	5.28
18.0000	5.20	5.12	5.05	4.97	4.90
18.5000	4.84	4.77	4.71	4.64	4.58
19.0000	4.52	4.45	4.39	4.33	4.27
19.5000	4.21	4.15	4.10	4.04	3.98
20.0000	3.92	3.86	3.80	3.75	3.69
20.5000	3.63	3.58	3.53	3.48	3.43
21.0000	3.39	3.35	3.31	3.28	3.24
21.5000	3.21	3.19	3.16	3.14	3.11
22.0000	3.10	3.08	3.06	3.04	3.02
22.5000	3.01	2.99	2.98	2.97	2.95
23.0000	2.94	2.92	2.91	2.90	2.89

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Prel00
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77

==========
Computational Time Increment = .23545 hrs
Computed Peak Time = 12.9497 hrs
Computed Peak Flow = 77.20 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 13.0000 hrs
Peak Flow, Interpolated Output = 76.55 cfs
==========

DRAINAGE AREA

ID:OFFSITE AREA
CN = 77
Area = 48.600 acres
S = 2.9870 in
0.2S = .5974 in

Cumulative Runoff

4.5460 in
18.411 ac-ft

HYG Volume... 18.411 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = 1.76586 hrs (ID: OFFSITE AREA)
Computational Incr, Tm = .23545 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 31.18 cfs
Unit peak time Tp = 1.17724 hrs
Unit receding limb, Tr = 4.70897 hrs
Total unit time, Tb = 5.88621 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - OFFSITE AREA Pre100
Tc = 1.7659 hrs
Drainage Area = 48.600 acres Runoff CN= 77
Calc.Increment= .23545 hrs Out.Incr.= .1000 hrs
HYG Volume = 18.411 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
6.3000	.00	.00	.00	.01	.01
6.8000	.02	.03	.04	.05	.08
7.3000	.10	.13	.16	.19	.23
7.8000	.28	.32	.37	.42	.48
8.3000	.54	.60	.66	.73	.80
8.8000	.88	.96	1.04	1.14	1.24
9.3000	1.35	1.46	1.58	1.70	1.82
9.8000	1.96	2.09	2.23	2.38	2.53
10.3000	2.70	2.87	3.07	3.27	3.52
10.8000	3.76	4.05	4.37	4.71	5.13
11.3000	5.54	6.12	6.70	7.76	9.11
11.8000	11.16	15.05	18.94	25.52	32.33
12.3000	40.36	49.31	57.78	64.42	71.06
12.8000	73.90	76.10	76.55	75.27	73.63
13.3000	69.93	66.24	61.42	56.31	51.55
13.8000	47.23	43.00	39.79	36.58	33.91
14.3000	31.45	29.15	27.11	25.08	23.52
14.8000	21.97	20.62	19.38	18.22	17.25
15.3000	16.28	15.52	14.76	14.10	13.50
15.8000	12.92	12.42	11.93	11.50	11.08
16.3000	10.70	10.35	10.01	9.70	9.40
16.8000	9.14	8.88	8.63	8.40	8.18
17.3000	7.97	7.77	7.59	7.42	7.27
17.8000	7.15	7.03	6.92	6.81	6.71
18.3000	6.62	6.52	6.43	6.34	6.25
18.8000	6.17	6.08	6.00	5.92	5.84
19.3000	5.75	5.67	5.59	5.52	5.44
19.8000	5.36	5.28	5.20	5.12	5.04
20.3000	4.97	4.89	4.82	4.75	4.68
20.8000	4.61	4.55	4.49	4.44	4.38
21.3000	4.34	4.30	4.26	4.22	4.19
21.8000	4.16	4.12	4.10	4.07	4.05

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre..2
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65

==========
Computational Time Increment = .05137 hrs
Computed Peak Time = 12.1736 hrs
Computed Peak Flow = 4.37 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.2000 hrs
Peak Flow, Interpolated Output = 4.21 cfs
WARNING: The difference between calculated peak flow
and interpolated peak flow is greater than 1.50%
==========

DRAINAGE AREA

ID:EX. SOUTHERN
CN = 65
Area = 7.070 acres
S = 5.3846 in
0.2S = 1.0769 in

Cumulative Runoff

.7520 in
.443 ac-ft

HYG Volume... .443 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .38524 hrs (ID: EX. SOUTHERN)
Computational Incr, Tm = .05137 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 20.79 cfs
Unit peak time Tp = .25683 hrs
Unit receding limb, Tr = 1.02731 hrs
Total unit time, Tb = 1.28414 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre..2
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65
Calc.Increment= .05137 hrs Out.Incr.= .1000 hrs
HYG Volume = .443 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
11.6000	.00	.02	.19	.94	2.57
12.1000	4.09	4.21	3.31	2.41	1.85
12.6000	1.47	1.20	1.02	.90	.81
13.1000	.74	.68	.64	.61	.58
13.6000	.55	.53	.51	.48	.46
14.1000	.44	.43	.41	.40	.39
14.6000	.39	.38	.37	.37	.36
15.1000	.35	.35	.34	.33	.33
15.6000	.32	.31	.31	.30	.29
16.1000	.28	.28	.27	.27	.27
16.6000	.26	.26	.26	.26	.25
17.1000	.25	.25	.25	.24	.24
17.6000	.24	.24	.23	.23	.23
18.1000	.22	.22	.22	.22	.21
18.6000	.21	.21	.21	.20	.20
19.1000	.20	.20	.19	.19	.19
19.6000	.18	.18	.18	.18	.17
20.1000	.17	.17	.16	.16	.16
20.6000	.16	.16	.16	.16	.16
21.1000	.16	.16	.16	.16	.16
21.6000	.16	.16	.16	.16	.16
22.1000	.16	.15	.15	.15	.15
22.6000	.15	.15	.15	.15	.15
23.1000	.15	.15	.15	.15	.15
23.6000	.15	.15	.15	.15	.15
24.1000	.14	.10	.06	.03	.02
24.6000	.01	.00	.00	.00	.00

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre.15
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65

==========
Computational Time Increment = .05137 hrs
Computed Peak Time = 12.1222 hrs
Computed Peak Flow = 11.94 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.1000 hrs
Peak Flow, Interpolated Output = 11.59 cfs
WARNING: The difference between calculated peak flow
and interpolated peak flow is greater than 1.50%
==========

DRAINAGE AREA

ID:EX. SOUTHERN
CN = 65
Area = 7.070 acres
S = 5.3846 in
0.2S = 1.0769 in

Cumulative Runoff

1.7880 in
1.053 ac-ft

HYG Volume... 1.053 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .38524 hrs (ID: EX. SOUTHERN)
Computational Incr, Tm = .05137 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 20.79 cfs
Unit peak time Tp = .25683 hrs
Unit receding limb, Tr = 1.02731 hrs
Total unit time, Tb = 1.28414 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre.15
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65
Calc.Increment= .05137 hrs Out.Incr.= .1000 hrs
HYG Volume = 1.053 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.6000	.00	.00	.01	.02	.04
11.1000	.07	.11	.15	.21	.29
11.6000	.42	.81	1.85	4.34	8.49
12.1000	11.59	11.04	8.29	5.85	4.35
12.6000	3.37	2.70	2.24	1.95	1.74
13.1000	1.58	1.45	1.36	1.28	1.22
13.6000	1.16	1.10	1.05	1.00	.96
14.1000	.92	.88	.85	.83	.81
14.6000	.79	.78	.76	.75	.73
15.1000	.72	.71	.69	.68	.66
15.6000	.65	.63	.62	.60	.59
16.1000	.57	.56	.55	.54	.53
16.6000	.53	.52	.51	.51	.50
17.1000	.50	.49	.49	.48	.48
17.6000	.47	.47	.46	.46	.45
18.1000	.44	.44	.43	.43	.42
18.6000	.42	.41	.41	.40	.39
19.1000	.39	.38	.38	.37	.37
19.6000	.36	.35	.35	.34	.34
20.1000	.33	.33	.32	.32	.32
20.6000	.32	.32	.31	.31	.31
21.1000	.31	.31	.31	.31	.31
21.6000	.31	.30	.30	.30	.30
22.1000	.30	.30	.30	.30	.30
22.6000	.30	.29	.29	.29	.29
23.1000	.29	.29	.29	.29	.29
23.6000	.28	.28	.28	.28	.28
24.1000	.26	.20	.12	.06	.03
24.6000	.02	.01	.00	.00	.00
25.1000	.00				

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre.25
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65

==========
Computational Time Increment = .05137 hrs
Computed Peak Time = 12.1222 hrs
Computed Peak Flow = 14.47 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.1000 hrs
Peak Flow, Interpolated Output = 14.09 cfs
WARNING: The difference between calculated peak flow
and interpolated peak flow is greater than 1.50%
==========

DRAINAGE AREA

ID:EX. SOUTHERN
CN = 65
Area = 7.070 acres
S = 5.3846 in
0.2S = 1.0769 in

Cumulative Runoff

2.1356 in
1.258 ac-ft

HYG Volume... 1.258 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .38524 hrs (ID: EX. SOUTHERN)
Computational Incr, Tm = .05137 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 20.79 cfs
Unit peak time Tp = .25683 hrs
Unit receding limb, Tr = 1.02731 hrs
Total unit time, Tb = 1.28414 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre.25
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65
Calc.Increment= .05137 hrs Out.Incr.= .1000 hrs
HYG Volume = 1.258 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.3000	.00	.00	.01	.03	.05
10.8000	.07	.10	.14	.18	.23
11.3000	.29	.37	.47	.64	1.15
11.8000	2.49	5.55	10.51	14.09	13.29
12.3000	9.92	6.97	5.16	3.98	3.17
12.8000	2.63	2.28	2.03	1.84	1.69
13.3000	1.58	1.50	1.42	1.35	1.28
13.8000	1.22	1.17	1.12	1.07	1.02
14.3000	.99	.96	.94	.92	.90
14.8000	.88	.87	.85	.83	.82
15.3000	.80	.78	.77	.75	.73
15.8000	.71	.70	.68	.66	.64
16.3000	.63	.62	.61	.61	.60
16.8000	.59	.59	.58	.58	.57
17.3000	.56	.56	.55	.54	.54
17.8000	.53	.53	.52	.51	.51
18.3000	.50	.49	.49	.48	.47
18.8000	.47	.46	.45	.45	.44
19.3000	.43	.43	.42	.41	.41
19.8000	.40	.39	.39	.38	.38
20.3000	.37	.37	.37	.36	.36
20.8000	.36	.36	.36	.36	.36
21.3000	.35	.35	.35	.35	.35
21.8000	.35	.35	.35	.35	.34
22.3000	.34	.34	.34	.34	.34
22.8000	.34	.34	.33	.33	.33
23.3000	.33	.33	.33	.33	.33
23.8000	.32	.32	.32	.30	.23
24.3000	.14	.07	.04	.02	.01
24.8000	.01	.00	.00	.00	

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre100
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65

==========
Computational Time Increment = .05137 hrs
Computed Peak Time = 12.1222 hrs
Computed Peak Flow = 22.59 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.1000 hrs
Peak Flow, Interpolated Output = 22.12 cfs
WARNING: The difference between calculated peak flow
and interpolated peak flow is greater than 1.50%
==========

DRAINAGE AREA

ID:EX. SOUTHERN
CN = 65
Area = 7.070 acres
S = 5.3846 in
0.2S = 1.0769 in

Cumulative Runoff

3.2580 in
1.920 ac-ft

HYG Volume... 1.919 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .38524 hrs (ID: EX. SOUTHERN)
Computational Incr, Tm = .05137 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 20.79 cfs
Unit peak time Tp = .25683 hrs
Unit receding limb, Tr = 1.02731 hrs
Total unit time, Tb = 1.28414 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - SOUTHERNSIDE Pre100
Tc = .3852 hrs
Drainage Area = 7.070 acres Runoff CN= 65
Calc.Increment= .05137 hrs Out.Incr.= .1000 hrs
HYG Volume = 1.919 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
9.2000	.00	.00	.01	.02	.03
9.7000	.04	.06	.08	.10	.12
10.2000	.14	.17	.20	.23	.27
10.7000	.31	.36	.42	.48	.56
11.2000	.65	.77	.91	1.08	1.40
11.7000	2.32	4.62	9.55	17.07	22.12
12.2000	20.46	15.08	10.49	7.69	5.88
12.7000	4.65	3.84	3.31	2.94	2.65
13.2000	2.43	2.27	2.15	2.03	1.93
13.7000	1.83	1.75	1.67	1.59	1.52
14.2000	1.46	1.41	1.37	1.33	1.31
14.7000	1.28	1.26	1.23	1.21	1.18
15.2000	1.16	1.13	1.11	1.08	1.06
15.7000	1.03	1.01	.98	.96	.93
16.2000	.91	.89	.88	.86	.85
16.7000	.84	.84	.83	.82	.81
17.2000	.80	.79	.78	.77	.76
17.7000	.76	.75	.74	.73	.72
18.2000	.71	.70	.69	.68	.67
18.7000	.66	.65	.65	.64	.63
19.2000	.62	.61	.60	.59	.58
19.7000	.57	.56	.55	.54	.53
20.2000	.52	.52	.51	.51	.51
20.7000	.51	.50	.50	.50	.50
21.2000	.50	.49	.49	.49	.49
21.7000	.49	.49	.48	.48	.48
22.2000	.48	.48	.48	.47	.47
22.7000	.47	.47	.47	.46	.46
23.2000	.46	.46	.46	.46	.45
23.7000	.45	.45	.45	.45	.42
24.2000	.32	.19	.10	.05	.03
24.7000	.01	.01	.00	.00	.00

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre..2
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67

==========
Computational Time Increment = .09526 hrs
Computed Peak Time = 12.3836 hrs
Computed Peak Flow = 8.89 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.4000 hrs
Peak Flow, Interpolated Output = 8.80 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #1
CN = 67
Area = 18.360 acres
S = 4.9254 in
0.2S = .9851 in

Cumulative Runoff

.8501 in
1.301 ac-ft

HYG Volume... 1.301 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .71444 hrs (ID: TO EX. LAKE #1)
Computational Incr, Tm = .09526 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 29.12 cfs
Unit peak time Tp = .47629 hrs
Unit receding limb, Tr = 1.90517 hrs
Total unit time, Tb = 2.38146 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre..2
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67
Calc.Increment= .09526 hrs Out.Incr.= .1000 hrs
HYG Volume = 1.301 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
11.5000	.00	.01	.06	.29	1.03
12.0000	2.64	5.02	7.35	8.64	8.80
12.5000	8.14	7.02	5.87	4.96	4.25
13.0000	3.67	3.21	2.85	2.56	2.32
13.5000	2.13	1.97	1.84	1.73	1.63
14.0000	1.54	1.46	1.38	1.32	1.27
14.5000	1.22	1.18	1.15	1.13	1.10
15.0000	1.08	1.06	1.03	1.01	.99
15.5000	.97	.95	.93	.91	.89
16.0000	.87	.85	.83	.82	.80
16.5000	.78	.77	.76	.75	.74
17.0000	.73	.72	.72	.71	.70
17.5000	.69	.69	.68	.67	.66
18.0000	.66	.65	.64	.63	.63
18.5000	.62	.61	.60	.60	.59
19.0000	.58	.57	.57	.56	.55
19.5000	.54	.53	.53	.52	.51
20.0000	.50	.49	.49	.48	.47
20.5000	.47	.46	.46	.46	.45
21.0000	.45	.45	.45	.45	.45
21.5000	.44	.44	.44	.44	.44
22.0000	.44	.44	.43	.43	.43
22.5000	.43	.43	.43	.43	.42
23.0000	.42	.42	.42	.42	.42
23.5000	.42	.41	.41	.41	.41
24.0000	.41	.40	.38	.33	.27
24.5000	.21	.15	.11	.08	.05
25.0000	.04	.03	.02	.01	.01
25.5000	.01	.00	.00	.00	.00
26.0000	.00				

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre.15
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67

==========
Computational Time Increment = .09526 hrs
Computed Peak Time = 12.2883 hrs
Computed Peak Flow = 22.79 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.3000 hrs
Peak Flow, Interpolated Output = 22.78 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #1
CN = 67
Area = 18.360 acres
S = 4.9254 in
0.2S = .9851 in

Cumulative Runoff

1.9437 in
2.974 ac-ft

HYG Volume... 2.975 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .71444 hrs (ID: TO EX. LAKE #1)
Computational Incr, Tm = .09526 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 29.12 cfs
Unit peak time Tp = .47629 hrs
Unit receding limb, Tr = 1.90517 hrs
Total unit time, Tb = 2.38146 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre.15
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67
Calc.Increment= .09526 hrs Out.Incr.= .1000 hrs
HYG Volume = 2.975 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.3000	.00	.00	.01	.02	.04
10.8000	.07	.11	.17	.23	.31
11.3000	.41	.53	.68	.91	1.38
11.8000	2.47	4.95	9.39	15.26	20.42
12.3000	22.78	22.34	20.06	16.87	13.82
12.8000	11.46	9.64	8.20	7.06	6.17
13.3000	5.47	4.92	4.47	4.10	3.80
13.8000	3.54	3.32	3.12	2.94	2.78
14.3000	2.64	2.53	2.44	2.36	2.29
14.8000	2.24	2.18	2.13	2.09	2.04
15.3000	2.00	1.96	1.92	1.88	1.84
15.8000	1.79	1.75	1.71	1.67	1.63
16.3000	1.59	1.56	1.53	1.50	1.48
16.8000	1.46	1.44	1.42	1.40	1.39
17.3000	1.37	1.36	1.34	1.33	1.31
17.8000	1.30	1.28	1.27	1.25	1.24
18.3000	1.22	1.21	1.19	1.18	1.16
18.8000	1.15	1.13	1.11	1.10	1.08
19.3000	1.07	1.05	1.04	1.02	1.01
19.8000	.99	.97	.96	.94	.93
20.3000	.91	.90	.89	.88	.87
20.8000	.87	.86	.86	.85	.85
21.3000	.85	.84	.84	.84	.84
21.8000	.83	.83	.83	.82	.82
22.3000	.82	.82	.81	.81	.81
22.8000	.80	.80	.80	.80	.79
23.3000	.79	.79	.78	.78	.78
23.8000	.77	.77	.77	.75	.71
24.3000	.62	.51	.39	.29	.20
24.8000	.14	.10	.07	.05	.04
25.3000	.02	.02	.01	.01	.01
25.8000	.00	.00	.00	.00	

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre.25
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67

==========
Computational Time Increment = .09526 hrs
Computed Peak Time = 12.2883 hrs
Computed Peak Flow = 27.49 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.3000 hrs
Peak Flow, Interpolated Output = 27.46 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #1
CN = 67
Area = 18.360 acres
S = 4.9254 in
0.2S = .9851 in

Cumulative Runoff

2.3060 in
3.528 ac-ft

HYG Volume... 3.530 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .71444 hrs (ID: TO EX. LAKE #1)
Computational Incr, Tm = .09526 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 29.12 cfs
Unit peak time Tp = .47629 hrs
Unit receding limb, Tr = 1.90517 hrs
Total unit time, Tb = 2.38146 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre.25
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67
Calc.Increment= .09526 hrs Out.Incr.= .1000 hrs
HYG Volume = 3.530 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
9.9000	.00	.00	.01	.02	.04
10.4000	.06	.09	.13	.18	.24
10.9000	.30	.38	.47	.58	.70
11.4000	.86	1.06	1.36	1.96	3.33
11.9000	6.38	11.75	18.74	24.79	27.46
12.4000	26.79	23.95	20.07	16.39	13.55
12.9000	11.37	9.64	8.28	7.22	6.39
13.4000	5.73	5.20	4.77	4.41	4.11
13.9000	3.85	3.61	3.40	3.21	3.05
14.4000	2.92	2.82	2.72	2.65	2.58
14.9000	2.52	2.46	2.41	2.36	2.31
15.4000	2.26	2.21	2.16	2.11	2.06
15.9000	2.02	1.97	1.92	1.87	1.83
16.4000	1.79	1.75	1.72	1.70	1.67
16.9000	1.65	1.63	1.61	1.59	1.57
17.4000	1.56	1.54	1.52	1.50	1.49
17.9000	1.47	1.45	1.44	1.42	1.40
18.4000	1.38	1.37	1.35	1.33	1.31
18.9000	1.29	1.28	1.26	1.24	1.22
19.4000	1.21	1.19	1.17	1.15	1.13
19.9000	1.11	1.10	1.08	1.06	1.04
20.4000	1.03	1.02	1.01	1.00	.99
20.9000	.99	.98	.98	.97	.97
21.4000	.97	.96	.96	.96	.95
21.9000	.95	.95	.94	.94	.94
22.4000	.93	.93	.93	.92	.92
22.9000	.92	.91	.91	.91	.90
23.4000	.90	.89	.89	.89	.88
23.9000	.88	.88	.86	.81	.71
24.4000	.58	.45	.33	.23	.16
24.9000	.12	.08	.06	.04	.03
25.4000	.02	.01	.01	.01	.00

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre100
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67

==========
Computational Time Increment = .09526 hrs
Computed Peak Time = 12.2883 hrs
Computed Peak Flow = 42.46 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.3000 hrs
Peak Flow, Interpolated Output = 42.35 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #1
CN = 67
Area = 18.360 acres
S = 4.9254 in
0.2S = .9851 in

Cumulative Runoff

3.4672 in
5.305 ac-ft

HYG Volume... 5.308 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .71444 hrs (ID: TO EX. LAKE #1)
Computational Incr, Tm = .09526 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 29.12 cfs
Unit peak time Tp = .47629 hrs
Unit receding limb, Tr = 1.90517 hrs
Total unit time, Tb = 2.38146 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE #1 Pre100
Tc = .7144 hrs
Drainage Area = 18.360 acres Runoff CN= 67
Calc.Increment= .09526 hrs Out.Incr.= .1000 hrs
HYG Volume = 5.308 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
8.8000	.00	.00	.01	.02	.04
9.3000	.06	.09	.12	.15	.18
9.8000	.22	.26	.30	.35	.41
10.3000	.47	.54	.62	.71	.80
10.8000	.92	1.04	1.19	1.35	1.54
11.3000	1.77	2.05	2.39	2.92	3.95
11.8000	6.24	11.14	19.45	29.97	38.78
12.3000	42.35	40.89	36.23	30.14	24.46
12.8000	20.10	16.77	14.14	12.08	10.48
13.3000	9.23	8.25	7.46	6.82	6.29
13.8000	5.84	5.46	5.12	4.80	4.53
14.3000	4.30	4.12	3.97	3.83	3.72
14.8000	3.62	3.54	3.45	3.38	3.30
15.3000	3.23	3.16	3.09	3.02	2.96
15.8000	2.89	2.82	2.75	2.68	2.62
16.3000	2.55	2.50	2.45	2.40	2.36
16.8000	2.33	2.30	2.27	2.24	2.22
17.3000	2.19	2.17	2.14	2.12	2.09
17.8000	2.07	2.04	2.02	1.99	1.97
18.3000	1.94	1.92	1.89	1.87	1.84
18.8000	1.82	1.80	1.77	1.74	1.72
19.3000	1.69	1.67	1.64	1.62	1.59
19.8000	1.57	1.54	1.52	1.49	1.47
20.3000	1.44	1.42	1.41	1.39	1.38
20.8000	1.37	1.36	1.36	1.35	1.35
21.3000	1.34	1.33	1.33	1.32	1.32
21.8000	1.31	1.31	1.30	1.30	1.29
22.3000	1.29	1.29	1.28	1.28	1.27
22.8000	1.27	1.26	1.26	1.25	1.25
23.3000	1.24	1.24	1.23	1.23	1.22
23.8000	1.22	1.21	1.21	1.18	1.11
24.3000	.98	.80	.62	.45	.32

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre..2
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66

==========
Computational Time Increment = .10305 hrs
Computed Peak Time = 12.4696 hrs
Computed Peak Flow = 19.46 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.4000 hrs
Peak Flow, Interpolated Output = 19.41 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #2
CN = 66
Area = 46.900 acres
S = 5.1515 in
0.2S = 1.0303 in

Cumulative Runoff

.8003 in
3.128 ac-ft

HYG Volume... 3.127 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .77291 hrs (ID: TO EX. LAKE #2)
Computational Incr, Tm = .10305 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 68.75 cfs
Unit peak time Tp = .51527 hrs
Unit receding limb, Tr = 2.06109 hrs
Total unit time, Tb = 2.57637 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 2 year storm
Duration = 24.0000 hrs Rain Depth = 3.5000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre..2
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66
Calc.Increment= .10305 hrs Out.Incr.= .1000 hrs
HYG Volume = 3.127 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
11.5000	.00	.01	.11	.58	2.06
12.0000	5.09	9.58	14.39	17.94	19.41
12.5000	19.01	17.29	14.94	12.71	10.93
13.0000	9.51	8.33	7.38	6.62	5.99
13.5000	5.48	5.06	4.71	4.40	4.14
14.0000	3.91	3.70	3.51	3.33	3.18
14.5000	3.05	2.95	2.87	2.80	2.73
15.0000	2.67	2.62	2.56	2.51	2.46
15.5000	2.41	2.36	2.32	2.27	2.22
16.0000	2.17	2.12	2.07	2.02	1.98
16.5000	1.94	1.91	1.88	1.85	1.83
17.0000	1.81	1.79	1.77	1.75	1.73
17.5000	1.71	1.70	1.68	1.66	1.64
18.0000	1.62	1.61	1.59	1.57	1.55
18.5000	1.53	1.52	1.50	1.48	1.46
19.0000	1.44	1.42	1.40	1.38	1.36
19.5000	1.34	1.33	1.31	1.29	1.27
20.0000	1.25	1.23	1.21	1.19	1.17
20.5000	1.16	1.15	1.14	1.13	1.12
21.0000	1.12	1.11	1.11	1.10	1.10
21.5000	1.10	1.09	1.09	1.09	1.08
22.0000	1.08	1.08	1.07	1.07	1.07
22.5000	1.06	1.06	1.06	1.05	1.05
23.0000	1.05	1.04	1.04	1.04	1.03
23.5000	1.03	1.03	1.02	1.02	1.01
24.0000	1.01	.99	.94	.85	.72
24.5000	.57	.44	.32	.23	.17
25.0000	.12	.09	.06	.05	.03
25.5000	.02	.02	.01	.01	.01
26.0000	.00	.00	.00	.00	

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre.15
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66

==========
Computational Time Increment = .10305 hrs
Computed Peak Time = 12.3666 hrs
Computed Peak Flow = 52.49 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.4000 hrs
Peak Flow, Interpolated Output = 51.90 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #2
CN = 66
Area = 46.900 acres
S = 5.1515 in
0.2S = 1.0303 in

Cumulative Runoff

1.8652 in
7.290 ac-ft

HYG Volume... 7.288 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .77291 hrs (ID: TO EX. LAKE #2)
Computational Incr, Tm = .10305 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 68.75 cfs
Unit peak time Tp = .51527 hrs
Unit receding limb, Tr = 2.06109 hrs
Total unit time, Tb = 2.57637 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 15 year storm
Duration = 24.0000 hrs Rain Depth = 5.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre.15
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66
Calc.Increment= .10305 hrs Out.Incr.= .1000 hrs
HYG Volume = 7.288 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.4000	.00	.00	.01	.02	.06
10.9000	.12	.21	.33	.49	.69
11.4000	.94	1.28	1.80	2.87	5.36
11.9000	10.68	19.70	31.48	42.86	50.15
12.4000	51.90	49.07	43.33	36.56	30.50
12.9000	25.74	22.00	18.96	16.54	14.62
13.4000	13.07	11.83	10.81	9.97	9.25
13.9000	8.64	8.11	7.64	7.21	6.81
14.4000	6.48	6.21	5.99	5.81	5.65
14.9000	5.51	5.38	5.26	5.15	5.04
15.4000	4.93	4.83	4.72	4.62	4.52
15.9000	4.41	4.31	4.21	4.11	4.01
16.4000	3.92	3.84	3.77	3.71	3.66
16.9000	3.61	3.56	3.52	3.48	3.44
17.4000	3.40	3.36	3.32	3.29	3.25
17.9000	3.21	3.18	3.14	3.10	3.06
18.4000	3.03	2.99	2.95	2.91	2.88
18.9000	2.84	2.80	2.76	2.72	2.68
19.4000	2.64	2.61	2.57	2.53	2.49
19.9000	2.45	2.41	2.37	2.33	2.30
20.4000	2.26	2.24	2.21	2.19	2.18
20.9000	2.16	2.15	2.14	2.13	2.12
21.4000	2.11	2.11	2.10	2.09	2.08
21.9000	2.08	2.07	2.06	2.06	2.05
22.4000	2.04	2.03	2.03	2.02	2.01
22.9000	2.01	2.00	1.99	1.98	1.98
23.4000	1.97	1.96	1.95	1.95	1.94
23.9000	1.93	1.92	1.88	1.79	1.61
24.4000	1.36	1.09	.83	.61	.44
24.9000	.32	.23	.17	.12	.09
25.4000	.06	.05	.03	.02	.02
25.9000	.01	.01	.00	.00	.00

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre.25
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66

==========
Computational Time Increment = .10305 hrs
Computed Peak Time = 12.3666 hrs
Computed Peak Flow = 63.52 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.4000 hrs
Peak Flow, Interpolated Output = 62.70 cfs
==========

DRAINAGE AREA

ID:TO EX. LAKE #2
CN = 66
Area = 46.900 acres
S = 5.1515 in
0.2S = 1.0303 in

Cumulative Runoff

2.2203 in
8.678 ac-ft

HYG Volume... 8.676 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .77291 hrs (ID: TO EX. LAKE #2)
Computational Incr, Tm = .10305 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 68.75 cfs
Unit peak time Tp = .51527 hrs
Unit receding limb, Tr = 2.06109 hrs
Total unit time, Tb = 2.57637 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 25 year storm
Duration = 24.0000 hrs Rain Depth = 5.7000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre.25
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66
Calc.Increment= .10305 hrs Out.Incr.= .1000 hrs
HYG Volume = 8.676 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.1000	.00	.00	.02	.04	.09
10.6000	.15	.24	.35	.49	.65
11.1000	.85	1.08	1.36	1.71	2.15
11.6000	2.85	4.23	7.38	13.96	24.94
12.1000	39.07	52.53	60.96	62.70	58.98
12.6000	51.87	43.61	36.27	30.53	26.02
13.1000	22.37	19.47	17.16	15.32	13.83
13.6000	12.62	11.62	10.77	10.05	9.42
14.1000	8.86	8.36	7.90	7.50	7.19
14.6000	6.93	6.72	6.53	6.37	6.22
15.1000	6.08	5.95	5.82	5.69	5.57
15.6000	5.45	5.33	5.21	5.09	4.97
16.1000	4.85	4.73	4.62	4.52	4.43
16.6000	4.35	4.27	4.21	4.15	4.10
17.1000	4.05	4.00	3.96	3.91	3.87
17.6000	3.82	3.78	3.74	3.69	3.65
18.1000	3.61	3.56	3.52	3.48	3.43
18.6000	3.39	3.35	3.30	3.26	3.21
19.1000	3.17	3.13	3.08	3.04	2.99
19.6000	2.95	2.90	2.86	2.81	2.77
20.1000	2.72	2.68	2.63	2.60	2.56
20.6000	2.54	2.51	2.50	2.48	2.47
21.1000	2.45	2.44	2.43	2.42	2.41
21.6000	2.41	2.40	2.39	2.38	2.37
22.1000	2.36	2.35	2.35	2.34	2.33
22.6000	2.32	2.31	2.30	2.30	2.29
23.1000	2.28	2.27	2.26	2.25	2.25
23.6000	2.24	2.23	2.22	2.21	2.20
24.1000	2.16	2.05	1.84	1.56	1.25
24.6000	.95	.70	.50	.37	.27
25.1000	.19	.14	.10	.07	.05
25.6000	.04	.03	.02	.01	.01

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Prel00
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66

==========
Computational Time Increment = .10305 hrs
Computed Peak Time = 12.3666 hrs
Computed Peak Flow = 98.76 cfs

Time Increment for HYG File = .1000 hrs
Peak Time, Interpolated Output = 12.4000 hrs
Peak Flow, Interpolated Output = 97.16 cfs
WARNING: The difference between calculated peak flow
and interpolated peak flow is greater than 1.50%
==========

DRAINAGE AREA

ID:TO EX. LAKE #2
CN = 66
Area = 46.900 acres
S = 5.1515 in
0.2S = 1.0303 in

Cumulative Runoff

3.3623 in
13.141 ac-ft

HYG Volume... 13.138 ac-ft (area under HYG curve)

***** UNIT HYDROGRAPH PARAMETERS *****

Time Concentration, Tc = .77291 hrs (ID: TO EX. LAKE #2)
Computational Incr, Tm = .10305 hrs = 0.20000 Tp

Unit Hyd. Shape Factor = 483.432 (37.46% under rising limb)
K = 483.43/645.333, K = .7491 (also, K = 2/(1+(Tr/Tp))
Receding/Rising, Tr/Tp = 1.6698 (solved from K = .7491)

Unit peak, qp = 68.75 cfs
Unit peak time Tp = .51527 hrs
Unit receding limb, Tr = 2.06109 hrs
Total unit time, Tb = 2.57637 hrs

SCS UNIT HYDROGRAPH METHOD

STORM EVENT: 100 year storm
Duration = 24.0000 hrs Rain Depth = 7.2000 in
Rain Dir = C:\HAESTAD\PPKW\RAINFALL\
Rain File -ID = SCSTYPES.RNF - TypeII 24hr
Unit Hyd Type = Default Curvilinear
HYG Dir = J:\0675B\PONDPACK\
HYG File - ID = EX-PERS.HYG - TO EX. LAKE#2 Pre100
Tc = .7729 hrs
Drainage Area = 46.900 acres Runoff CN= 66
Calc.Increment= .10305 hrs Out.Incr.= .1000 hrs
HYG Volume = 13.138 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
8.9000	.00	.00	.01	.02	.04
9.4000	.08	.13	.19	.26	.34
9.9000	.43	.53	.64	.77	.91
10.4000	1.06	1.24	1.44	1.66	1.92
10.9000	2.21	2.54	2.91	3.35	3.87
11.4000	4.50	5.30	6.54	8.95	14.28
11.9000	24.95	42.19	63.79	83.74	95.60
12.4000	97.16	90.51	78.92	65.89	54.47
12.9000	45.59	38.63	33.03	28.59	25.09
13.4000	22.28	20.04	18.23	16.72	15.46
13.9000	14.39	13.46	12.64	11.89	11.22
14.4000	10.64	10.18	9.81	9.50	9.24
14.9000	9.00	8.78	8.58	8.39	8.20
15.4000	8.03	7.85	7.68	7.50	7.33
15.9000	7.16	6.99	6.82	6.65	6.49
16.4000	6.34	6.21	6.09	5.99	5.90
16.9000	5.82	5.75	5.67	5.61	5.54
17.4000	5.47	5.41	5.35	5.29	5.22
17.9000	5.16	5.10	5.04	4.98	4.91
18.4000	4.85	4.79	4.73	4.67	4.60
18.9000	4.54	4.48	4.42	4.35	4.29
19.4000	4.23	4.16	4.10	4.04	3.97
19.9000	3.91	3.85	3.78	3.72	3.66
20.4000	3.61	3.56	3.52	3.49	3.47
20.9000	3.45	3.43	3.41	3.39	3.38
21.4000	3.36	3.35	3.34	3.33	3.31
21.9000	3.30	3.29	3.28	3.26	3.25
22.4000	3.24	3.23	3.22	3.20	3.19
22.9000	3.18	3.17	3.16	3.14	3.13
23.4000	3.12	3.11	3.09	3.08	3.07
23.9000	3.06	3.04	2.98	2.83	2.55
24.4000	2.16	1.72	1.32	.96	.70

SUMMARY FOR HYDROGRAPH ADDITION
at Node: ALLOWABLE

HYG Directory: J:\0675B\PONDPACK\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
POND2-EXIST	EX. LAKE #2 IN	EX-PERS.HYG	POND2-EXIST	Pre..2
SOUTHERN EXIST.	SOUTHERNSIDE	EX-PERS.HYG	SOUTHERNSIDE	Pre..2

INFLOWS TO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	POND2-EXIST	Pre..2	10.222	13.9000	21.83
EX-PERS.HYG	SOUTHERNSIDE	Pre..2	.443	12.2000	4.21

TOTAL FLOW INTO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	ALLOWABLE	Pre..2	10.665	13.8000	22.32

TOTAL NODE INFLOW...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = ALLOWABLE
HYG Tag = Pre..2

Peak Discharge =	22.32 cfs
Time to Peak =	13.8000 hrs
HYG Volume =	10.665 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.0000	.00	.00	.00	.01	.01
10.5000	.02	.03	.05	.07	.10
11.0000	.14	.19	.24	.27	.32
11.5000	.39	.46	.60	.96	2.06
12.0000	4.21	6.51	7.84	8.80	10.35
12.5000	12.62	15.22	16.64	17.56	18.43
13.0000	19.23	19.95	20.57	21.11	21.54
13.5000	21.88	22.11	22.26	22.32	22.31
14.0000	22.24	22.12	21.95	21.74	21.51
14.5000	21.24	20.95	20.64	20.31	19.96
15.0000	19.61	19.24	18.87	18.49	18.11
15.5000	17.72	17.33	16.95	16.56	16.18
16.0000	15.80	15.42	14.95	14.37	13.70
16.5000	12.98	12.34	11.75	11.20	10.72
17.0000	10.27	9.86	9.49	9.14	8.82
17.5000	8.51	8.24	7.98	7.74	7.52
18.0000	7.31	7.12	6.94	6.77	6.62
18.5000	6.47	6.32	6.19	6.06	5.94
19.0000	5.83	5.72	5.62	5.52	5.42
19.5000	5.33	5.24	5.15	5.06	4.98
20.0000	4.90	4.83	4.75	4.68	4.61
20.5000	4.54	4.47	4.41	4.35	4.28
21.0000	4.23	4.17	4.11	4.06	4.01
21.5000	3.96	3.92	3.88	3.84	3.80
22.0000	3.77	3.73	3.70	3.67	3.64
22.5000	3.61	3.58	3.55	3.53	3.50
23.0000	3.48	3.46	3.43	3.41	3.39
23.5000	3.37	3.35	3.33	3.32	3.30
24.0000	3.28	3.25	3.20	3.13	3.07
24.5000	3.00	2.93	2.85	2.77	2.68
25.0000	2.59	2.49	2.39	2.29	2.19
25.5000	2.09	1.99	1.88	1.77	1.67
26.0000	1.57	1.47	1.38	1.30	1.17

SUMMARY FOR HYDROGRAPH ADDITION
at Node: ALLOWABLE

HYG Directory: J:\0675B\PONDPACK\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
POND2-EXIST	EX. LAKE #2 IN	EX-PERS.HYG	POND2-EXIST	Pre.15
SOUTHERN EXIST.	SOUTHERNSIDE	EX-PERS.HYG	SOUTHERNSIDE	Pre.15

INFLOWS TO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	POND2-EXIST	Pre.15	21.568	13.5000	56.02
EX-PERS.HYG	SOUTHERNSIDE	Pre.15	1.053	12.1000	11.59

TOTAL FLOW INTO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	ALLOWABLE	Pre.15	22.621	13.5000	57.24

TOTAL NODE INFLOW...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = ALLOWABLE
HYG Tag = Pre.15

Peak Discharge =	57.24 cfs
Time to Peak =	13.5000 hrs
HYG Volume =	22.621 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
8.1000	.00	.00	.00	.01	.01
8.6000	.02	.03	.04	.06	.08
9.1000	.11	.14	.17	.21	.24
9.6000	.27	.30	.34	.39	.43
10.1000	.47	.52	.58	.64	.70
10.6000	.75	.81	.88	.98	1.12
11.1000	1.28	1.45	1.62	1.84	2.11
11.6000	2.48	3.18	4.69	8.10	14.00
12.1000	20.22	24.67	25.24	25.81	27.27
12.6000	29.02	30.77	32.34	34.54	40.74
13.1000	46.98	51.86	55.13	56.83	57.24
13.6000	56.57	55.16	53.28	51.12	48.84
14.1000	46.61	44.43	42.35	40.45	38.67
14.6000	37.02	35.58	34.30	33.15	32.37
15.1000	31.82	31.50	31.13	30.74	30.34
15.6000	29.94	29.52	29.08	28.63	28.17
16.1000	27.70	27.23	26.76	26.29	25.81
16.6000	25.35	24.89	24.42	23.96	23.51
17.1000	23.05	22.61	22.16	21.73	21.30
17.6000	20.87	20.45	20.03	19.62	19.23
18.1000	18.83	18.45	18.07	17.70	17.33
18.6000	16.97	16.62	16.27	15.93	15.60
19.1000	15.27	14.76	14.28	13.66	13.08
19.6000	12.55	12.07	11.63	11.22	10.85
20.1000	10.51	10.19	9.88	9.61	9.35
20.6000	9.11	8.88	8.67	8.47	8.29
21.1000	8.12	7.95	7.80	7.66	7.52
21.6000	7.39	7.28	7.17	7.07	6.98
22.1000	6.89	6.81	6.73	6.65	6.58
22.6000	6.52	6.45	6.39	6.34	6.28
23.1000	6.23	6.18	6.14	6.10	6.06
23.6000	6.02	5.98	5.94	5.91	5.87
24.1000	5.82	5.72	5.59	5.46	5.33

SUMMARY FOR HYDROGRAPH ADDITION
at Node: ALLOWABLE

HYG Directory: J:\0675B\PONDPACK\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
POND2-EXIST	EX. LAKE #2 IN	EX-PERS.HYG	POND2-EXIST	Pre.25
SOUTHERN EXIST.	SOUTHERNSIDE	EX-PERS.HYG	SOUTHERNSIDE	Pre.25

INFLOWS TO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	POND2-EXIST	Pre.25	25.240	13.3000	71.51
EX-PERS.HYG	SOUTHERNSIDE	Pre.25	1.258	12.1000	14.09

TOTAL FLOW INTO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	ALLOWABLE	Pre.25	26.498	13.3000	73.09

TOTAL NODE INFLOW...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = ALLOWABLE
HYG Tag = Pre.25

Peak Discharge =	73.09 cfs
Time to Peak =	13.3000 hrs
HYG Volume =	26.498 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
7.6000	.00	.00	.00	.01	.01
8.1000	.02	.03	.04	.06	.07
8.6000	.10	.12	.15	.19	.23
9.1000	.25	.28	.32	.36	.40
9.6000	.44	.49	.54	.60	.66
10.1000	.71	.76	.81	.88	.97
10.6000	1.07	1.21	1.36	1.49	1.64
11.1000	1.83	2.05	2.31	2.60	2.95
11.6000	3.43	4.40	6.44	10.80	18.13
12.1000	25.88	29.40	29.29	29.81	31.37
12.6000	33.21	35.60	45.26	55.35	63.35
13.1000	68.76	71.88	73.09	72.80	71.38
13.6000	69.09	66.24	63.11	59.87	56.70
14.1000	53.68	50.82	48.17	45.72	43.49
14.6000	41.44	39.56	37.92	36.43	35.07
15.1000	33.97	32.99	32.27	31.83	31.53
15.6000	31.18	30.82	30.44	30.06	29.67
16.1000	29.27	28.85	28.42	27.99	27.56
16.6000	27.13	26.69	26.26	25.83	25.40
17.1000	24.97	24.54	24.12	23.70	23.29
17.6000	22.87	22.47	22.06	21.67	21.28
18.1000	20.89	20.51	20.14	19.77	19.41
18.6000	19.05	18.70	18.35	18.02	17.68
19.1000	17.34	17.02	16.70	16.38	16.07
19.6000	15.76	15.46	15.07	14.61	14.14
20.1000	13.56	13.03	12.55	12.11	11.70
20.6000	11.32	10.98	10.66	10.36	10.09
21.1000	9.83	9.60	9.38	9.17	8.98
21.6000	8.80	8.63	8.47	8.33	8.20
22.1000	8.07	7.95	7.84	7.74	7.64
22.6000	7.54	7.46	7.38	7.30	7.23
23.1000	7.17	7.10	7.04	6.99	6.93
23.6000	6.88	6.83	6.78	6.74	6.69

SUMMARY FOR HYDROGRAPH ADDITION
at Node: ALLOWABLE

HYG Directory: J:\0675B\PONDPACK\

Upstream Link ID	Upstream Node ID	HYG file	HYG ID	HYG tag
POND2-EXIST	EX. LAKE #2 IN	EX-PERS.HYG	POND2-EXIST	Pre100
SOUTHERN EXIST.	SOUTHERNSIDE	EX-PERS.HYG	SOUTHERNSIDE	Pre100

INFLOWS TO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	POND2-EXIST	Pre100	36.856	13.0000	119.06
EX-PERS.HYG	SOUTHERNSIDE	Pre100	1.919	12.1000	22.12

TOTAL FLOW INTO: ALLOWABLE

HYG file	HYG ID	HYG tag	Volume ac-ft	Peak Time hrs	Peak Flow cfs
EX-PERS.HYG	ALLOWABLE	Pre100	38.775	13.0000	122.00

TOTAL NODE INFLOW...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = ALLOWABLE
HYG Tag = Pre100

Peak Discharge =	122.00 cfs
Time to Peak =	13.0000 hrs
HYG Volume =	38.775 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
6.4000	.00	.00	.00	.01	.01
6.9000	.02	.03	.04	.06	.07
7.4000	.10	.13	.16	.19	.23
7.9000	.25	.28	.31	.35	.39
8.4000	.43	.47	.51	.56	.61
8.9000	.67	.72	.76	.81	.88
9.4000	.96	1.06	1.17	1.29	1.40
9.9000	1.51	1.63	1.77	1.92	2.10
10.4000	2.28	2.47	2.68	2.92	3.18
10.9000	3.51	3.87	4.28	4.77	5.34
11.4000	6.01	6.81	7.89	9.83	13.67
11.9000	21.24	32.40	40.48	42.83	42.02
12.4000	42.03	60.34	83.39	101.53	113.24
12.9000	119.51	122.00	121.68	119.48	115.96
13.4000	111.45	106.31	100.66	94.81	89.02
13.9000	83.42	78.15	73.30	68.83	64.77
14.4000	61.06	57.69	54.62	51.83	49.33
14.9000	47.08	45.03	43.16	41.49	39.93
15.4000	38.58	37.30	36.20	35.14	34.27
15.9000	33.41	32.82	32.24	31.96	31.71
16.4000	31.43	31.15	30.85	30.55	30.24
16.9000	29.92	29.60	29.27	28.94	28.59
17.4000	28.25	27.90	27.55	27.20	26.86
17.9000	26.52	26.18	25.84	25.50	25.18
18.4000	24.84	24.52	24.19	23.87	23.56
18.9000	23.24	22.93	22.62	22.31	22.01
19.4000	21.71	21.41	21.12	20.82	20.53
19.9000	20.23	19.94	19.65	19.37	19.09
20.4000	18.81	18.53	18.26	17.99	17.72
20.9000	17.46	17.20	16.94	16.69	16.44
21.4000	16.20	15.96	15.72	15.49	15.18
21.9000	14.83	14.50	14.12	13.72	13.34
22.4000	12.99	12.68	12.39	12.12	11.87

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
550.40	.000	.0000	.0000	.000	.000
552.00	90440.000	2.0762	2.0762	1.107	1.107
554.00	112120.000	2.5739	6.9619	4.641	5.749
555.00	116870.000	2.6830	7.8848	2.628	8.377

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

where: EL1, EL2 = Lower and upper elevations of the increment
Area1,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2

POND VOLUME CALCULATIONS

Planimeter scale: 1.00 ft/in

Elevation (ft)	Planimeter (sq.in)	Area (acres)	A1+A2+sqr(A1*A2) (acres)	Volume (ac-ft)	Volume Sum (ac-ft)
521.80	.000	.0000	.0000	.000	.000
522.00	90520.000	2.0781	2.0781	.139	.139
524.00	95500.000	2.1924	6.4049	4.270	4.408
526.00	127200.000	2.9201	7.6427	5.095	9.504
527.00	130500.000	2.9959	8.8737	2.958	12.462

POND VOLUME EQUATIONS

* Incremental volume computed by the Conic Method for Reservoir Volumes.

Volume = (1/3) * (EL2-EL1) * (Area1 + Area2 + sq.rt.(Area1*Area2))

where: EL1, EL2 = Lower and upper elevations of the increment
Area1,Area2 = Areas computed for EL1, EL2, respectively
Volume = Incremental volume between EL1 and EL2

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1 OUTLET ROUTING

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 550.40 ft
Increment = .05 ft
Max. Elev.= 555.00 ft

****
OUTLET CONNECTIVITY
****

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Culvert-Circular	P1	--->	TW	550.400	555.000
TW SETUP, DS Channel					

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1 OUTLET ROUTING

OUTLET STRUCTURE INPUT DATA

Structure ID	=	P1	
Structure Type	=	Culvert-Circular	
No. Barrels	=	1	
Barrel Diameter	=	1.2500	ft
Upstream Invert	=	550.40	ft
Dnstream Invert	=	534.00	ft
Horiz. Length	=	127.00	ft
Barrel Length	=	128.05	ft
Barrel Slope	=	.12913	ft/ft

OUTLET CONTROL DATA...

Mannings n	=	.0130	
Ke	=	.5000	(forward entrance loss)
Kb	=	.023225	(per ft of full flow)
Kr	=	.5000	(reverse entrance loss)
HW Convergence	=	.001	+/- ft

INLET CONTROL DATA...

Equation form	=	1
Inlet Control K	=	.0098
Inlet Control M	=	2.0000
Inlet Control c	=	.03980
Inlet Control Y	=	.6700
T1 ratio (HW/D)	=	1.096
T2 ratio (HW/D)	=	1.242
Slope Factor	=	-.500
Calc inlet only	=	Yes

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev = 551.77 ft ---> Flow = 4.80 cfs
At T2 Elev = 551.95 ft ---> Flow = 5.49 cfs

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1 OUTLET ROUTING

OUTLET STRUCTURE INPUT DATA

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...
Maximum Iterations= 30
Min. TW tolerance = .01 ft
Max. TW tolerance = .01 ft
Min. HW tolerance = .01 ft
Max. HW tolerance = .01 ft
Min. Q tolerance = .10 cfs
Max. Q tolerance = .10 cfs

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1 OUTLET ROUTING

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Notes		
		Converge		
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
550.40	.00	Free Outfall		None contributing
550.45	.07	Free Outfall		P1
550.50	.12	Free Outfall		P1
550.55	.20	Free Outfall		P1
550.60	.29	Free Outfall		P1
550.65	.39	Free Outfall		P1
550.70	.52	Free Outfall		P1
550.75	.66	Free Outfall		P1
550.80	.80	Free Outfall		P1
550.85	.97	Free Outfall		P1
550.90	1.13	Free Outfall		P1
550.95	1.31	Free Outfall		P1
551.00	1.50	Free Outfall		P1
551.05	1.70	Free Outfall		P1
551.10	1.90	Free Outfall		P1
551.15	2.10	Free Outfall		P1
551.20	2.32	Free Outfall		P1
551.25	2.53	Free Outfall		P1
551.30	2.74	Free Outfall		P1
551.35	2.97	Free Outfall		P1
551.40	3.18	Free Outfall		P1
551.45	3.41	Free Outfall		P1
551.50	3.63	Free Outfall		P1
551.55	3.85	Free Outfall		P1
551.60	4.07	Free Outfall		P1
551.65	4.29	Free Outfall		P1
551.70	4.51	Free Outfall		P1
551.75	4.72	Free Outfall		P1
551.80	4.91	Free Outfall		P1
551.85	5.10	Free Outfall		P1
551.90	5.29	Free Outfall		P1
551.95	5.48	Free Outfall		P1
552.00	5.65	Free Outfall		P1
552.05	5.81	Free Outfall		P1
552.10	5.97	Free Outfall		P1
552.15	6.13	Free Outfall		P1
552.20	6.28	Free Outfall		P1

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1 OUTLET ROUTING

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
552.25	6.43	Free Outfall		P1
552.30	6.57	Free Outfall		P1
552.35	6.72	Free Outfall		P1
552.40	6.86	Free Outfall		P1
552.45	7.00	Free Outfall		P1
552.50	7.13	Free Outfall		P1
552.55	7.26	Free Outfall		P1
552.60	7.39	Free Outfall		P1
552.65	7.52	Free Outfall		P1
552.70	7.64	Free Outfall		P1
552.75	7.77	Free Outfall		P1
552.80	7.89	Free Outfall		P1
552.85	8.00	Free Outfall		P1
552.90	8.12	Free Outfall		P1
552.95	8.24	Free Outfall		P1
553.00	8.35	Free Outfall		P1
553.05	8.46	Free Outfall		P1
553.10	8.58	Free Outfall		P1
553.15	8.68	Free Outfall		P1
553.20	8.79	Free Outfall		P1
553.25	8.90	Free Outfall		P1
553.30	9.01	Free Outfall		P1
553.35	9.11	Free Outfall		P1
553.40	9.21	Free Outfall		P1
553.45	9.32	Free Outfall		P1
553.50	9.42	Free Outfall		P1
553.55	9.52	Free Outfall		P1
553.60	9.61	Free Outfall		P1
553.65	9.71	Free Outfall		P1
553.70	9.81	Free Outfall		P1
553.75	9.91	Free Outfall		P1
553.80	10.00	Free Outfall		P1
553.85	10.09	Free Outfall		P1
553.90	10.19	Free Outfall		P1
553.95	10.28	Free Outfall		P1
554.00	10.37	Free Outfall		P1
554.05	10.46	Free Outfall		P1

Type.... Composite Rating Curve
Name.... EX. POND 1 ROUTE

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 1 OUTLET ROUTING

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
554.10	10.55	Free Outfall		P1
554.15	10.64	Free Outfall		P1
554.20	10.73	Free Outfall		P1
554.25	10.82	Free Outfall		P1
554.30	10.90	Free Outfall		P1
554.35	10.99	Free Outfall		P1
554.40	11.08	Free Outfall		P1
554.45	11.16	Free Outfall		P1
554.50	11.25	Free Outfall		P1
554.55	11.33	Free Outfall		P1
554.60	11.41	Free Outfall		P1
554.65	11.50	Free Outfall		P1
554.70	11.58	Free Outfall		P1
554.75	11.66	Free Outfall		P1
554.80	11.74	Free Outfall		P1
554.85	11.82	Free Outfall		P1
554.90	11.90	Free Outfall		P1
554.95	11.98	Free Outfall		P1
555.00	12.06	Free Outfall		P1

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2 ROUTE

REQUESTED POND WS ELEVATIONS:

Min. Elev.= 521.80 ft
Increment = .05 ft
Max. Elev.= 527.00 ft

****
OUTLET CONNECTIVITY
****

---> Forward Flow Only (UpStream to DnStream)
<--- Reverse Flow Only (DnStream to UpStream)
<---> Forward and Reverse Both Allowed

Structure	No.		Outfall	E1, ft	E2, ft
Stand Pipe	24	--->	TW	521.800	527.000
Weir-Rectangular	PW	--->	TW	524.000	527.000
Culvert-Circular	18	--->	TW	521.870	527.000

TW SETUP, DS Channel

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2 ROUTE

OUTLET STRUCTURE INPUT DATA

Structure ID	= 24	
Structure Type	= Stand Pipe	
# of Openings	= 1	
Invert Elev.	= 521.80	ft
Diameter	= 2.0000	ft
Orifice Area	= 3.1416	sq.ft
Orifice Coeff.	= .600	
Weir Length	= 6.28	ft
Weir Coeff.	= 3.330	
K, Submerged	= .000	
K, Reverse	= 1.000	
Kb,Barrel	= .000000	(per ft of full flow)
Barrel Length	= .00	ft
Mannings n	= .0000	

Structure ID	= PW	
Structure Type	= Weir-Rectangular	
# of Openings	= 1	
Crest Elev.	= 524.00	ft
Weir Length	= 20.00	ft
Weir Coeff.	= 3.330000	

Weir TW effects (Use adjustment equation)

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2 ROUTE

OUTLET STRUCTURE INPUT DATA

Structure ID = 18
Structure Type = Culvert-Circular

No. Barrels	=	1
Barrel Diameter	=	1.5000 ft
Upstream Invert	=	521.87 ft
Dnstream Invert	=	508.87 ft
Horiz. Length	=	186.00 ft
Barrel Length	=	186.45 ft
Barrel Slope	=	.06989 ft/ft

OUTLET CONTROL DATA...

Mannings n	=	.0100	
Ke	=	.5000	(forward entrance loss)
Kb	=	.010777	(per ft of full flow)
Kr	=	.5000	(reverse entrance loss)
HW Convergence	=	.001	+/- ft

INLET CONTROL DATA...

Equation form	=	1
Inlet Control K	=	.0340
Inlet Control M	=	1.5000
Inlet Control c	=	.05530
Inlet Control Y	=	.5400
T1 ratio (HW/D)	=	1.228
T2 ratio (HW/D)	=	1.390
Slope Factor	=	-.500
Calc inlet only	=	Yes

Use unsubmerged inlet control Form 1 equ. below T1 elev.
Use submerged inlet control Form 1 equ. above T2 elev.

In transition zone between unsubmerged and submerged inlet control,
interpolate between flows at T1 & T2...
At T1 Elev = 523.71 ft ---> Flow = 7.58 cfs
At T2 Elev = 523.95 ft ---> Flow = 8.66 cfs

Structure ID = TW
Structure Type = TW SETUP, DS Channel

FREE OUTFALL CONDITIONS SPECIFIED

CONVERGENCE TOLERANCES...

Maximum Iterations	=	30
Min. TW tolerance	=	.01 ft
Max. TW tolerance	=	.01 ft
Min. HW tolerance	=	.01 ft
Max. HW tolerance	=	.01 ft
Min. Q tolerance	=	.10 cfs
Max. Q tolerance	=	.10 cfs

Type.... Composite Rating Curve
Name.... POND2-EXIST

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2 ROUTE

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
521.80	.00	Free Outfall		24
521.85	.23	Free Outfall		24
521.87	.39	Free Outfall		24
521.90	.69	Free Outfall		24 +18
521.95	1.29	Free Outfall		24 +18
522.00	2.01	Free Outfall		24 +18
522.05	2.83	Free Outfall		24 +18
522.10	3.75	Free Outfall		24 +18
522.15	4.77	Free Outfall		24 +18
522.20	5.86	Free Outfall		24 +18
522.25	7.03	Free Outfall		24 +18
522.30	8.27	Free Outfall		24 +18
522.35	9.57	Free Outfall		24 +18
522.40	10.94	Free Outfall		24 +18
522.45	12.38	Free Outfall		24 +18
522.50	13.86	Free Outfall		24 +18
522.55	14.92	Free Outfall		24 +18
522.60	15.56	Free Outfall		24 +18
522.65	16.19	Free Outfall		24 +18
522.70	16.82	Free Outfall		24 +18
522.75	17.46	Free Outfall		24 +18
522.80	18.07	Free Outfall		24 +18
522.85	18.69	Free Outfall		24 +18
522.90	19.29	Free Outfall		24 +18
522.95	19.90	Free Outfall		24 +18
523.00	20.50	Free Outfall		24 +18
523.05	21.09	Free Outfall		24 +18
523.10	21.67	Free Outfall		24 +18
523.15	22.26	Free Outfall		24 +18
523.20	22.84	Free Outfall		24 +18
523.25	23.41	Free Outfall		24 +18
523.30	23.98	Free Outfall		24 +18
523.35	24.55	Free Outfall		24 +18
523.40	25.10	Free Outfall		24 +18
523.45	25.66	Free Outfall		24 +18
523.50	26.21	Free Outfall		24 +18
523.55	26.75	Free Outfall		24 +18

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2 ROUTE

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Notes		
		Converge		
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
523.60	27.29	Free Outfall		24 +18
523.65	27.83	Free Outfall		24 +18
523.70	28.35	Free Outfall		24 +18
523.75	28.86	Free Outfall		24 +18
523.80	29.35	Free Outfall		24 +18
523.85	29.84	Free Outfall		24 +18
523.90	30.32	Free Outfall		24 +18
523.95	30.81	Free Outfall		24 +18
524.00	31.23	Free Outfall		24 +PW +18
524.05	32.39	Free Outfall		24 +PW +18
524.10	34.16	Free Outfall		24 +PW +18
524.15	36.32	Free Outfall		24 +PW +18
524.20	38.81	Free Outfall		24 +PW +18
524.25	41.57	Free Outfall		24 +PW +18
524.30	44.57	Free Outfall		24 +PW +18
524.35	47.80	Free Outfall		24 +PW +18
524.40	51.23	Free Outfall		24 +PW +18
524.45	54.86	Free Outfall		24 +PW +18
524.50	58.67	Free Outfall		24 +PW +18
524.55	62.66	Free Outfall		24 +PW +18
524.60	66.81	Free Outfall		24 +PW +18
524.65	71.11	Free Outfall		24 +PW +18
524.70	75.57	Free Outfall		24 +PW +18
524.75	80.18	Free Outfall		24 +PW +18
524.80	84.92	Free Outfall		24 +PW +18
524.85	89.80	Free Outfall		24 +PW +18
524.90	94.81	Free Outfall		24 +PW +18
524.95	99.96	Free Outfall		24 +PW +18
525.00	105.22	Free Outfall		24 +PW +18
525.05	110.61	Free Outfall		24 +PW +18
525.10	116.11	Free Outfall		24 +PW +18
525.15	121.74	Free Outfall		24 +PW +18
525.20	127.48	Free Outfall		24 +PW +18
525.25	133.33	Free Outfall		24 +PW +18
525.30	139.29	Free Outfall		24 +PW +18
525.35	145.35	Free Outfall		24 +PW +18
525.40	151.52	Free Outfall		24 +PW +18

Type.... Composite Rating Curve
Name.... POND2-EXIST

File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Title... EXISTING POND 2 ROUTE

***** COMPOSITE OUTFLOW SUMMARY ****

WS Elev, Total Q		Converge		Notes
Elev. ft	Q cfs	TW Elev ft	Error +/-ft	Contributing Structures
525.45	157.80	Free Outfall		24 +PW +18
525.50	164.17	Free Outfall		24 +PW +18
525.55	170.64	Free Outfall		24 +PW +18
525.60	177.22	Free Outfall		24 +PW +18
525.65	183.89	Free Outfall		24 +PW +18
525.70	190.66	Free Outfall		24 +PW +18
525.75	197.51	Free Outfall		24 +PW +18
525.80	204.46	Free Outfall		24 +PW +18
525.85	211.50	Free Outfall		24 +PW +18
525.90	218.63	Free Outfall		24 +PW +18
525.95	225.86	Free Outfall		24 +PW +18
526.00	233.16	Free Outfall		24 +PW +18
526.05	240.55	Free Outfall		24 +PW +18
526.10	248.03	Free Outfall		24 +PW +18
526.15	255.59	Free Outfall		24 +PW +18
526.20	263.25	Free Outfall		24 +PW +18
526.25	270.97	Free Outfall		24 +PW +18
526.30	278.78	Free Outfall		24 +PW +18
526.35	286.67	Free Outfall		24 +PW +18
526.40	294.64	Free Outfall		24 +PW +18
526.45	302.70	Free Outfall		24 +PW +18
526.50	310.83	Free Outfall		24 +PW +18
526.55	319.03	Free Outfall		24 +PW +18
526.60	327.31	Free Outfall		24 +PW +18
526.65	335.67	Free Outfall		24 +PW +18
526.70	344.11	Free Outfall		24 +PW +18
526.75	352.62	Free Outfall		24 +PW +18
526.80	361.20	Free Outfall		24 +PW +18
526.85	369.85	Free Outfall		24 +PW +18
526.90	378.58	Free Outfall		24 +PW +18
526.95	387.39	Free Outfall		24 +PW +18
527.00	396.26	Free Outfall		24 +PW +18

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre..2

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
550.40	.00	.000	.0000	.00	.00	.00
550.45	.07	.000	.0020	.00	.07	.07
550.50	.12	.000	.0081	.00	.12	.19
550.55	.20	.001	.0183	.00	.20	.42
550.60	.29	.002	.0324	.00	.29	.81
550.65	.39	.004	.0507	.00	.39	1.42
550.70	.52	.007	.0730	.00	.52	2.28
550.75	.66	.012	.0993	.00	.66	3.46
550.80	.80	.017	.1298	.00	.80	4.99
550.85	.97	.025	.1642	.00	.97	6.93
550.90	1.13	.034	.2028	.00	1.13	9.31
550.95	1.31	.045	.2453	.00	1.31	12.20
551.00	1.50	.058	.2920	.00	1.50	15.63
551.05	1.70	.074	.3427	.00	1.70	19.67
551.10	1.90	.093	.3974	.00	1.90	24.34
551.15	2.10	.114	.4562	.00	2.10	29.70
551.20	2.32	.138	.5191	.00	2.32	35.81
551.25	2.53	.166	.5859	.00	2.53	42.70
551.30	2.74	.197	.6570	.00	2.74	50.44
551.35	2.97	.232	.7320	.00	2.97	59.06
551.40	3.18	.270	.8110	.00	3.18	68.61
551.45	3.41	.313	.8942	.00	3.41	79.14
551.50	3.63	.360	.9813	.00	3.63	90.70

Type.... Pond E-V-Q Table
Name.... EX. LAKE #1
File.... J:\0675B\PONDPACK\EXISTING-2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre..2

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
551.55	3.85	.411	1.0727	.00	3.85	103.36
551.60	4.07	.467	1.1679	.00	4.07	117.12
551.65	4.29	.528	1.2673	.00	4.29	132.07
551.70	4.51	.594	1.3706	.00	4.51	148.24
551.75	4.72	.665	1.4781	.00	4.72	165.68
551.80	4.91	.742	1.5897	.00	4.91	184.45
551.85	5.10	.824	1.7053	.00	5.10	204.56
551.90	5.29	.912	1.8249	.00	5.29	226.10
551.95	5.48	1.007	1.9485	.00	5.48	249.10
552.00	5.65	1.107	2.0762	.00	5.65	273.62
552.05	5.81	1.212	2.0880	.00	5.81	299.00
552.10	5.97	1.316	2.0998	.00	5.97	324.49
552.15	6.13	1.421	2.1117	.00	6.13	350.12
552.20	6.28	1.527	2.1236	.00	6.28	375.89
552.25	6.43	1.634	2.1355	.00	6.43	401.80
552.30	6.57	1.741	2.1475	.00	6.57	427.88
552.35	6.72	1.849	2.1595	.00	6.72	454.07
552.40	6.86	1.957	2.1715	.00	6.86	480.41
552.45	7.00	2.066	2.1835	.00	7.00	506.89
552.50	7.13	2.175	2.1956	.00	7.13	533.51
552.55	7.26	2.285	2.2078	.00	7.26	560.31
552.60	7.39	2.396	2.2199	.00	7.39	587.22
552.65	7.52	2.507	2.2321	.00	7.52	614.27

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre..2

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
552.70	7.64	2.619	2.2443	.00	7.64	641.47
552.75	7.77	2.732	2.2566	.00	7.77	668.82
552.80	7.89	2.845	2.2689	.00	7.89	696.35
552.85	8.00	2.959	2.2812	.00	8.00	723.99
552.90	8.12	3.073	2.2936	.00	8.12	751.77
552.95	8.24	3.188	2.3060	.00	8.24	779.71
553.00	8.35	3.303	2.3184	.00	8.35	807.80
553.05	8.46	3.420	2.3309	.00	8.46	836.06
553.10	8.58	3.537	2.3434	.00	8.58	864.45
553.15	8.68	3.654	2.3559	.00	8.68	892.98
553.20	8.79	3.772	2.3684	.00	8.79	921.66
553.25	8.90	3.891	2.3810	.00	8.90	950.50
553.30	9.01	4.010	2.3937	.00	9.01	979.52
553.35	9.11	4.130	2.4063	.00	9.11	1008.66
553.40	9.21	4.251	2.4190	.00	9.21	1037.95
553.45	9.32	4.372	2.4317	.00	9.32	1067.39
553.50	9.42	4.494	2.4445	.00	9.42	1096.98
553.55	9.52	4.617	2.4573	.00	9.52	1126.77
553.60	9.61	4.740	2.4701	.00	9.61	1156.67
553.65	9.71	4.864	2.4830	.00	9.71	1186.72
553.70	9.81	4.988	2.4959	.00	9.81	1216.94
553.75	9.91	5.113	2.5088	.00	9.91	1247.30
553.80	10.00	5.239	2.5218	.00	10.00	1277.86

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre..2

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	= 550.40	ft
Starting Volume	= .000	ac-ft
Starting Outflow	= .00	cfs
Starting Infiltr.	= .00	cfs
Starting Total Qout	= .00	cfs
Time Increment	= .1000	hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
553.85	10.09	5.365	2.5348	.00	10.09	1308.54
553.90	10.19	5.493	2.5478	.00	10.19	1339.37
553.95	10.28	5.620	2.5608	.00	10.28	1370.37
554.00	10.37	5.749	2.5739	.00	10.37	1401.52
554.05	10.46	5.877	2.5793	.00	10.46	1432.82
554.10	10.55	6.007	2.5847	.00	10.55	1464.14
554.15	10.64	6.136	2.5901	.00	10.64	1495.53
554.20	10.73	6.266	2.5956	.00	10.73	1526.99
554.25	10.82	6.395	2.6010	.00	10.82	1558.50
554.30	10.90	6.526	2.6064	.00	10.90	1590.13
554.35	10.99	6.656	2.6118	.00	10.99	1621.77
554.40	11.08	6.787	2.6173	.00	11.08	1653.49
554.45	11.16	6.918	2.6227	.00	11.16	1685.27
554.50	11.25	7.049	2.6282	.00	11.25	1717.11
554.55	11.33	7.181	2.6336	.00	11.33	1749.06
554.60	11.41	7.312	2.6391	.00	11.41	1781.04
554.65	11.50	7.445	2.6445	.00	11.50	1813.08
554.70	11.58	7.577	2.6500	.00	11.58	1845.18
554.75	11.66	7.709	2.6555	.00	11.66	1877.35
554.80	11.74	7.843	2.6610	.00	11.74	1909.63
554.85	11.82	7.976	2.6665	.00	11.82	1941.94
554.90	11.90	8.109	2.6720	.00	11.90	1974.30
554.95	11.98	8.243	2.6775	.00	11.98	2006.74
555.00	12.06	8.377	2.6830	.00	12.06	2039.24

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre..2

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	8.80 cfs	at	12.4000 hrs
Peak Outflow	=	3.45 cfs	at	13.0000 hrs
Peak Elevation	=	551.46 ft		
Peak Storage	=	.321 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	1.301
- Infiltration	=	.000
- HYG Vol OUT	=	1.301
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

Type.... Detention Time
Name.... EX. LAKE #1 OUT Tag: Pre..2
File.... J:\0675B\PONDPACK\EXISTING-2.PPW
Storm... TypeII 24hr Tag: Pre..2

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre..2

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.0000	hrs
Tp, Total Inflow	=	12.4000	hrs
Peak to Peak	=	.6000	hrs
Qout+Infilt. Centroid	=	15.7448	hrs
Inflow Centroid	=	15.0841	hrs
Centroid to Centroid	=	.6606	hrs
Weighted Avg. Plug Time	=	.6804	hrs
Max.Plug Vol. Plug Time	=	.6709	hrs
Max.Inflow Plug Volume	=	.072	ac-ft (From 12.3000 to 12.4000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #1 OUT
HYG Tag = Pre..2

Peak Discharge =	3.45 cfs
Time to Peak =	13.0000 hrs
HYG Volume =	1.301 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
11.5000	.00	.00	.03	.17	.38
12.0000	.73	1.20	1.73	2.22	2.62
12.5000	2.93	3.15	3.29	3.38	3.43
13.0000	3.45	3.45	3.43	3.41	3.36
13.5000	3.32	3.26	3.20	3.14	3.07
14.0000	3.01	2.93	2.85	2.78	2.70
14.5000	2.61	2.54	2.45	2.37	2.30
15.0000	2.21	2.13	2.05	1.97	1.89
15.5000	1.82	1.75	1.67	1.60	1.53
16.0000	1.47	1.40	1.34	1.28	1.22
16.5000	1.17	1.12	1.07	1.02	.98
17.0000	.95	.91	.88	.85	.83
17.5000	.80	.78	.76	.75	.73
18.0000	.72	.70	.69	.68	.67
18.5000	.66	.65	.64	.63	.62
19.0000	.61	.61	.60	.59	.58
19.5000	.57	.56	.56	.55	.54
20.0000	.53	.52	.52	.51	.50
20.5000	.49	.48	.48	.47	.47
21.0000	.46	.46	.46	.45	.45
21.5000	.45	.45	.45	.44	.44
22.0000	.44	.44	.44	.44	.44
22.5000	.43	.43	.43	.43	.43
23.0000	.43	.43	.42	.42	.42
23.5000	.42	.42	.42	.42	.41
24.0000	.41	.41	.40	.39	.36
24.5000	.32	.26	.20	.11	.06
25.0000	.05	.03	.02	.02	.01
25.5000	.01	.01	.00	.00	.00
26.0000	.00				

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre.15
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre.15

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	22.78 cfs	at	12.3000 hrs
Peak Outflow	=	5.61 cfs	at	13.3000 hrs
Peak Elevation	=	551.99 ft		
Peak Storage	=	1.083 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	2.975
- Infiltration	=	.000
- HYG Vol OUT	=	2.975
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre.15
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre.15

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.3000	hrs
Tp, Total Inflow	=	12.3000	hrs
Peak to Peak	=	1.0000	hrs
Qout+Infilt. Centroid	=	16.0851	hrs
Inflow Centroid	=	14.6381	hrs
Centroid to Centroid	=	1.4470	hrs
Weighted Avg. Plug Time	=	1.4955	hrs
Max.Plug Vol. Plug Time	=	1.3292	hrs
Max.Inflow Plug Volume	=	.186	ac-ft (From 12.3000 to 12.4000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #1 OUT
HYG Tag = Pre.15

Peak Discharge =	5.61 cfs
Time to Peak =	13.3000 hrs
HYG Volume =	2.975 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
10.3000	.00	.00	.01	.01	.03
10.8000	.06	.09	.14	.19	.23
11.3000	.29	.35	.43	.53	.67
11.8000	.90	1.28	1.86	2.58	3.32
12.3000	3.98	4.51	4.89	5.14	5.32
12.8000	5.44	5.52	5.56	5.59	5.61
13.3000	5.61	5.60	5.59	5.57	5.55
13.8000	5.52	5.49	5.46	5.42	5.38
14.3000	5.34	5.29	5.24	5.19	5.14
14.8000	5.09	5.04	4.98	4.93	4.87
15.3000	4.81	4.75	4.69	4.62	4.56
15.8000	4.49	4.41	4.34	4.27	4.19
16.3000	4.11	4.04	3.96	3.88	3.80
16.8000	3.72	3.64	3.56	3.48	3.40
17.3000	3.31	3.22	3.14	3.06	2.98
17.8000	2.90	2.81	2.73	2.65	2.57
18.3000	2.49	2.42	2.34	2.27	2.19
18.8000	2.12	2.04	1.97	1.90	1.83
19.3000	1.77	1.71	1.65	1.59	1.53
19.8000	1.48	1.42	1.37	1.32	1.28
20.3000	1.23	1.19	1.16	1.12	1.09
20.8000	1.06	1.03	1.01	.99	.97
21.3000	.95	.93	.92	.90	.89
21.8000	.88	.87	.87	.86	.85
22.3000	.85	.84	.84	.83	.83
22.8000	.83	.82	.82	.81	.81
23.3000	.81	.80	.80	.80	.79
23.8000	.79	.79	.78	.78	.77
24.3000	.75	.71	.66	.59	.51
24.8000	.41	.31	.22	.10	.04
25.3000	.03	.02	.01	.01	.01
25.8000	.00	.00	.00	.00	

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre.25
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre.25

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	27.46 cfs	at	12.3000 hrs
Peak Outflow	=	6.05 cfs	at	13.3000 hrs
Peak Elevation	=	552.13 ft		
Peak Storage	=	1.370 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	3.530
- Infiltration	=	.000
- HYG Vol OUT	=	3.530
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre.25
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre.25

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.4000	hrs
Tp, Total Inflow	=	12.3000	hrs
Peak to Peak	=	1.1000	hrs
Qout+Infilt. Centroid	=	16.2633	hrs
Inflow Centroid	=	14.5532	hrs
Centroid to Centroid	=	1.7101	hrs
Weighted Avg. Plug Time	=	1.7677	hrs
Max.Plug Vol. Plug Time	=	1.5429	hrs
Max.Inflow Plug Volume	=	.224	ac-ft (From 12.3000 to 12.4000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #1 OUT
HYG Tag = Pre.25

Peak Discharge =	6.05 cfs
Time to Peak =	13.3000 hrs
HYG Volume =	3.530 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
9.9000	.00	.00	.00	.01	.03
10.4000	.05	.08	.11	.16	.20
10.9000	.23	.28	.33	.40	.47
11.4000	.55	.65	.76	.92	1.16
11.9000	1.58	2.19	2.95	3.72	4.40
12.4000	4.93	5.30	5.56	5.73	5.84
12.9000	5.93	5.99	6.02	6.04	6.05
13.4000	6.05	6.04	6.03	6.01	5.99
13.9000	5.97	5.94	5.91	5.88	5.84
14.4000	5.81	5.77	5.73	5.69	5.65
14.9000	5.61	5.57	5.52	5.48	5.43
15.4000	5.37	5.32	5.27	5.22	5.16
15.9000	5.11	5.05	4.99	4.93	4.87
16.4000	4.81	4.75	4.68	4.60	4.53
16.9000	4.46	4.38	4.30	4.23	4.15
17.4000	4.07	3.99	3.92	3.84	3.76
17.9000	3.68	3.60	3.52	3.44	3.35
18.4000	3.27	3.19	3.11	3.03	2.95
18.9000	2.86	2.78	2.70	2.62	2.54
19.4000	2.46	2.38	2.31	2.23	2.15
19.9000	2.08	2.00	1.93	1.86	1.79
20.4000	1.73	1.67	1.60	1.54	1.49
20.9000	1.43	1.38	1.34	1.30	1.26
21.4000	1.22	1.19	1.16	1.14	1.11
21.9000	1.09	1.07	1.05	1.04	1.02
22.4000	1.01	1.00	.99	.98	.97
22.9000	.96	.95	.95	.94	.93
23.4000	.93	.92	.92	.91	.91
23.9000	.90	.90	.89	.88	.86
24.4000	.83	.77	.70	.61	.51
24.9000	.40	.30	.20	.06	.03
25.4000	.02	.02	.01	.01	.01
25.9000	.00	.00	.00		

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre100
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre100

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	550.40 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	42.35 cfs	at	12.3000 hrs
Peak Outflow	=	7.32 cfs	at	13.5000 hrs

Peak Elevation	=	552.57 ft
Peak Storage	=	2.338 ac-ft

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	5.308
- Infiltration	=	.000
- HYG Vol OUT	=	5.308
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #1 IN Pre100
Outflow HYG file = EX-PERS.HYG - EX. LAKE #1 OUT Pre100

Pond Node Data = EX. LAKE #1
Pond Volume Data = POND1
Pond Outlet Data = EX. POND 1 ROUTE

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.5000	hrs
Tp, Total Inflow	=	12.3000	hrs
Peak to Peak	=	1.2000	hrs
Qout+Infilt. Centroid	=	16.8638	hrs
Inflow Centroid	=	14.3554	hrs
Centroid to Centroid	=	2.5083	hrs
Weighted Avg. Plug Time	=	2.5919	hrs
Max.Plug Vol. Plug Time	=	2.1608	hrs
Max.Inflow Plug Volume	=	.344	ac-ft (From 12.3000 to 12.4000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #1 OUT
HYG Tag = Pre100

Peak Discharge	=	7.32 cfs
Time to Peak	=	13.5000 hrs
HYG Volume	=	5.308 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
8.8000	.00	.00	.01	.01	.03
9.3000	.05	.07	.10	.13	.17
9.8000	.19	.22	.25	.28	.32
10.3000	.36	.41	.46	.52	.57
10.8000	.64	.71	.79	.87	.97
11.3000	1.06	1.18	1.30	1.46	1.65
11.8000	1.95	2.42	3.10	3.92	4.76
12.3000	5.41	5.90	6.30	6.60	6.82
12.8000	6.99	7.10	7.18	7.24	7.28
13.3000	7.30	7.32	7.32	7.32	7.31
13.8000	7.30	7.28	7.27	7.24	7.22
14.3000	7.19	7.16	7.13	7.10	7.07
14.8000	7.03	7.00	6.96	6.93	6.89
15.3000	6.85	6.81	6.77	6.73	6.69
15.8000	6.65	6.61	6.57	6.52	6.48
16.3000	6.44	6.39	6.35	6.30	6.26
16.8000	6.21	6.16	6.12	6.07	6.02
17.3000	5.98	5.93	5.88	5.83	5.79
17.8000	5.74	5.69	5.65	5.60	5.54
18.3000	5.49	5.44	5.38	5.32	5.27
18.8000	5.21	5.15	5.09	5.02	4.96
19.3000	4.90	4.83	4.77	4.70	4.62
19.8000	4.55	4.47	4.39	4.31	4.23
20.3000	4.15	4.07	3.99	3.91	3.83
20.8000	3.74	3.66	3.57	3.49	3.41
21.3000	3.32	3.23	3.15	3.07	2.99
21.8000	2.90	2.82	2.74	2.66	2.59
22.3000	2.51	2.44	2.37	2.30	2.23
22.8000	2.16	2.10	2.03	1.97	1.92
23.3000	1.86	1.81	1.76	1.71	1.67
23.8000	1.63	1.59	1.55	1.51	1.48
24.3000	1.43	1.37	1.29	1.20	1.09
24.8000	.98	.85	.72	.59	.45

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
521.80	.00	.000	.0000	.00	.00	.00
521.85	.23	.002	.1298	.00	.23	.76
521.87	.39	.006	.2546	.00	.39	1.83
521.90	.69	.017	.5192	.00	.69	4.88
521.95	1.29	.058	1.1691	.00	1.29	15.44
522.00	2.01	.139	2.0781	.00	2.01	35.54
522.05	2.83	.242	2.0809	.00	2.83	61.52
522.10	3.75	.347	2.0837	.00	3.75	87.63
522.15	4.77	.451	2.0865	.00	4.77	113.86
522.20	5.86	.555	2.0893	.00	5.86	140.25
522.25	7.03	.660	2.0922	.00	7.03	166.70
522.30	8.27	.764	2.0950	.00	8.27	193.27
522.35	9.57	.869	2.0978	.00	9.57	219.94
522.40	10.94	.974	2.1007	.00	10.94	246.70
522.45	12.38	1.079	2.1035	.00	12.38	273.60
522.50	13.86	1.185	2.1063	.00	13.86	300.55
522.55	14.92	1.290	2.1092	.00	14.92	327.10
522.60	15.56	1.396	2.1120	.00	15.56	353.27
522.65	16.19	1.501	2.1149	.00	16.19	379.47
522.70	16.82	1.607	2.1177	.00	16.82	405.74
522.75	17.46	1.713	2.1206	.00	17.46	432.00
522.80	18.07	1.819	2.1234	.00	18.07	458.29
522.85	18.69	1.925	2.1263	.00	18.69	484.61

Type.... Pond E-V-Q Table
Name.... EX. LAKE #2
File.... J:\0675B\PONDPACK\EXISTING-2.PPW

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
522.90	19.29	2.032	2.1291	.00	19.29	510.95
522.95	19.90	2.138	2.1320	.00	19.90	537.36
523.00	20.50	2.245	2.1348	.00	20.50	563.77
523.05	21.09	2.352	2.1377	.00	21.09	590.20
523.10	21.67	2.459	2.1406	.00	21.67	616.67
523.15	22.26	2.566	2.1434	.00	22.26	643.16
523.20	22.84	2.673	2.1463	.00	22.84	669.72
523.25	23.41	2.780	2.1491	.00	23.41	696.27
523.30	23.98	2.888	2.1520	.00	23.98	722.86
523.35	24.55	2.996	2.1549	.00	24.55	749.48
523.40	25.10	3.103	2.1578	.00	25.10	776.11
523.45	25.66	3.211	2.1606	.00	25.66	802.82
523.50	26.21	3.320	2.1635	.00	26.21	829.53
523.55	26.75	3.428	2.1664	.00	26.75	856.26
523.60	27.29	3.536	2.1693	.00	27.29	883.02
523.65	27.83	3.645	2.1721	.00	27.83	909.82
523.70	28.35	3.753	2.1750	.00	28.35	936.67
523.75	28.86	3.862	2.1779	.00	28.86	963.51
523.80	29.35	3.971	2.1808	.00	29.35	990.36
523.85	29.84	4.080	2.1837	.00	29.84	1017.25
523.90	30.32	4.189	2.1866	.00	30.32	1044.17
523.95	30.81	4.299	2.1895	.00	30.81	1071.15
524.00	31.23	4.408	2.1924	.00	31.23	1098.08

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	= 521.80	ft
Starting Volume	= .000	ac-ft
Starting Outflow	= .00	cfs
Starting Infiltr.	= .00	cfs
Starting Total Qout	= .00	cfs
Time Increment	= .1000	hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
524.05	32.39	4.518	2.2093	.00	32.39	1125.86
524.10	34.16	4.629	2.2263	.00	34.16	1154.46
524.15	36.32	4.741	2.2433	.00	36.32	1183.66
524.20	38.81	4.854	2.2605	.00	38.81	1213.42
524.25	41.57	4.967	2.2777	.00	41.57	1243.62
524.30	44.57	5.081	2.2949	.00	44.57	1274.28
524.35	47.80	5.197	2.3122	.00	47.80	1305.38
524.40	51.23	5.313	2.3296	.00	51.23	1336.89
524.45	54.86	5.430	2.3470	.00	54.86	1368.84
524.50	58.67	5.547	2.3646	.00	58.67	1401.15
524.55	62.66	5.666	2.3821	.00	62.66	1433.85
524.60	66.81	5.786	2.3998	.00	66.81	1466.92
524.65	71.11	5.906	2.4175	.00	71.11	1500.36
524.70	75.57	6.027	2.4352	.00	75.57	1534.21
524.75	80.18	6.150	2.4531	.00	80.18	1568.38
524.80	84.92	6.273	2.4710	.00	84.92	1602.90
524.85	89.80	6.397	2.4889	.00	89.80	1637.79
524.90	94.81	6.522	2.5070	.00	94.81	1673.01
524.95	99.96	6.647	2.5251	.00	99.96	1708.63
525.00	105.22	6.774	2.5432	.00	105.22	1744.56
525.05	110.61	6.902	2.5615	.00	110.61	1780.82
525.10	116.11	7.030	2.5797	.00	116.11	1817.42
525.15	121.74	7.160	2.5981	.00	121.74	1854.36

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
525.20	127.48	7.290	2.6165	.00	127.48	1891.68
525.25	133.33	7.421	2.6350	.00	133.33	1929.30
525.30	139.29	7.554	2.6536	.00	139.29	1967.24
525.35	145.35	7.687	2.6722	.00	145.35	2005.52
525.40	151.52	7.821	2.6908	.00	151.52	2044.12
525.45	157.80	7.956	2.7096	.00	157.80	2083.11
525.50	164.17	8.092	2.7284	.00	164.17	2122.38
525.55	170.64	8.229	2.7473	.00	170.64	2161.97
525.60	177.22	8.366	2.7662	.00	177.22	2201.89
525.65	183.89	8.505	2.7852	.00	183.89	2242.13
525.70	190.66	8.645	2.8043	.00	190.66	2282.75
525.75	197.51	8.786	2.8235	.00	197.51	2323.65
525.80	204.46	8.927	2.8426	.00	204.46	2364.87
525.85	211.50	9.070	2.8619	.00	211.50	2406.41
525.90	218.63	9.213	2.8812	.00	218.63	2448.28
525.95	225.86	9.358	2.9007	.00	225.86	2490.52
526.00	233.16	9.504	2.9201	.00	233.16	2533.03
526.05	240.55	9.650	2.9239	.00	240.55	2575.77
526.10	248.03	9.796	2.9276	.00	248.03	2618.64
526.15	255.59	9.942	2.9314	.00	255.59	2661.64
526.20	263.25	10.089	2.9352	.00	263.25	2704.83
526.25	270.97	10.236	2.9390	.00	270.97	2748.08
526.30	278.78	10.383	2.9427	.00	278.78	2791.47

LEVEL POOL ROUTING DATA

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

Elevation ft	Outflow cfs	Storage ac-ft	Area acres	Infilt. cfs	Q Total cfs	2S/t + O cfs
526.35	286.67	10.530	2.9465	.00	286.67	2834.98
526.40	294.64	10.678	2.9503	.00	294.64	2878.62
526.45	302.70	10.825	2.9541	.00	302.70	2922.43
526.50	310.83	10.973	2.9579	.00	310.83	2966.32
526.55	319.03	11.121	2.9617	.00	319.03	3010.32
526.60	327.31	11.269	2.9654	.00	327.31	3054.46
526.65	335.67	11.418	2.9692	.00	335.67	3098.71
526.70	344.11	11.566	2.9730	.00	344.11	3143.13
526.75	352.62	11.715	2.9768	.00	352.62	3187.63
526.80	361.20	11.864	2.9806	.00	361.20	3232.24
526.85	369.85	12.013	2.9844	.00	369.85	3276.98
526.90	378.58	12.162	2.9882	.00	378.58	3321.83
526.95	387.39	12.312	2.9921	.00	387.39	3366.85
527.00	396.26	12.462	2.9959	.00	396.26	3411.94

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	38.73 cfs	at	12.7000 hrs
Peak Outflow	=	21.83 cfs	at	13.9000 hrs
Peak Elevation	=	523.11 ft		
Peak Storage	=	2.487 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	10.222
- Infiltration	=	.000
- HYG Vol OUT	=	10.222
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre..2
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre..2

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.9000	hrs
Tp, Total Inflow	=	12.7000	hrs
Peak to Peak	=	1.2000	hrs
Qout+Infilt. Centroid	=	16.5479	hrs
Inflow Centroid	=	15.3672	hrs
Centroid to Centroid	=	1.1807	hrs
Weighted Avg. Plug Time	=	1.1952	hrs
Max.Plug Vol. Plug Time	=	.8704	hrs
Max.Inflow Plug Volume	=	.320	ac-ft (From 12.6000 to 12.7000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #2 OUT
HYG Tag = Pre..2

Peak Discharge =	21.83 cfs
Time to Peak =	13.9000 hrs
HYG Volume =	10.222 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
9.9000	.00	.00	.00	.00	.01
10.4000	.01	.02	.03	.05	.07
10.9000	.10	.14	.19	.24	.27
11.4000	.32	.39	.46	.58	.77
11.9000	1.12	1.64	2.41	3.63	5.49
12.4000	7.93	10.77	13.75	15.44	16.54
12.9000	17.54	18.43	19.20	19.89	20.46
13.4000	20.93	21.30	21.56	21.73	21.82
13.9000	21.83	21.78	21.67	21.52	21.33
14.4000	21.10	20.85	20.56	20.26	19.93
14.9000	19.59	19.24	18.89	18.52	18.15
15.4000	17.77	17.40	17.01	16.63	16.25
15.9000	15.88	15.50	15.13	14.68	14.10
16.4000	13.43	12.72	12.07	11.49	10.95
16.9000	10.47	10.02	9.61	9.24	8.89
17.4000	8.57	8.27	8.00	7.75	7.51
17.9000	7.29	7.08	6.89	6.72	6.55
18.4000	6.40	6.25	6.11	5.98	5.85
18.9000	5.74	5.63	5.53	5.43	5.33
19.4000	5.23	5.14	5.06	4.97	4.89
19.9000	4.80	4.73	4.66	4.58	4.51
20.4000	4.45	4.38	4.31	4.25	4.18
20.9000	4.12	4.07	4.01	3.95	3.90
21.4000	3.85	3.81	3.76	3.72	3.68
21.9000	3.65	3.61	3.58	3.54	3.51
22.4000	3.48	3.46	3.43	3.40	3.38
22.9000	3.35	3.33	3.31	3.29	3.26
23.4000	3.24	3.22	3.21	3.19	3.17
23.9000	3.15	3.13	3.12	3.10	3.07
24.4000	3.03	2.99	2.92	2.85	2.77
24.9000	2.68	2.59	2.49	2.39	2.29
25.4000	2.19	2.09	1.99	1.88	1.77
25.9000	1.67	1.57	1.47	1.38	1.30

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre.15
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre.15

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	88.11 cfs	at	12.5000 hrs
Peak Outflow	=	56.02 cfs	at	13.5000 hrs
Peak Elevation	=	524.47 ft		
Peak Storage	=	5.465 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	21.568
- Infiltration	=	.000
- HYG Vol OUT	=	21.568
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre.15
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre.15

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.5000	hrs
Tp, Total Inflow	=	12.5000	hrs
Peak to Peak	=	1.0000	hrs
Qout+Infilt. Centroid	=	16.4246	hrs
Inflow Centroid	=	15.0866	hrs
Centroid to Centroid	=	1.3380	hrs
Weighted Avg. Plug Time	=	1.3547	hrs
Max.Plug Vol. Plug Time	=	.9227	hrs
Max.Inflow Plug Volume	=	.723	ac-ft (From 12.5000 to 12.6000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #2 OUT
HYG Tag = Pre.15

Peak Discharge =	56.02 cfs
Time to Peak =	13.5000 hrs
HYG Volume =	21.568 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
8.0000	.00	.00	.00	.00	.01
8.5000	.01	.02	.03	.04	.06
9.0000	.08	.11	.14	.17	.21
9.5000	.24	.27	.30	.34	.39
10.0000	.43	.47	.52	.58	.64
10.5000	.70	.75	.80	.87	.96
11.0000	1.07	1.21	1.34	1.47	1.62
11.5000	1.82	2.06	2.37	2.84	3.76
12.0000	5.51	8.63	13.63	16.95	19.95
12.5000	22.91	25.65	28.07	30.09	32.59
13.0000	39.00	45.40	50.41	53.77	55.54
13.5000	56.02	55.41	54.06	52.23	50.12
14.0000	47.88	45.69	43.55	41.50	39.62
14.5000	37.86	36.22	34.80	33.53	32.40
15.0000	31.64	31.09	30.79	30.44	30.07
15.5000	29.68	29.29	28.89	28.46	28.03
16.0000	27.58	27.13	26.67	26.21	25.75
16.5000	25.28	24.82	24.37	23.91	23.45
17.0000	23.00	22.56	22.11	21.67	21.24
17.5000	20.82	20.40	19.98	19.57	19.17
18.0000	18.78	18.39	18.01	17.64	17.27
18.5000	16.91	16.55	16.21	15.87	15.53
19.0000	15.21	14.88	14.37	13.90	13.29
19.5000	12.71	12.19	11.72	11.28	10.88
20.0000	10.52	10.18	9.86	9.56	9.29
20.5000	9.04	8.80	8.57	8.35	8.16
21.0000	7.98	7.80	7.64	7.49	7.35
21.5000	7.21	7.09	6.97	6.87	6.77
22.0000	6.68	6.59	6.51	6.43	6.35
22.5000	6.29	6.22	6.16	6.10	6.04
23.0000	5.99	5.94	5.89	5.85	5.81
23.5000	5.77	5.73	5.70	5.66	5.63
24.0000	5.59	5.56	5.52	5.47	5.40

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre.25
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre.25

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	104.19 cfs	at	12.5000 hrs
Peak Outflow	=	71.51 cfs	at	13.3000 hrs
Peak Elevation	=	524.65 ft		
Peak Storage	=	5.917 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	25.240
- Infiltration	=	.000
- HYG Vol OUT	=	25.240
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre.25
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre.25

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.3000	hrs
Tp, Total Inflow	=	12.5000	hrs
Peak to Peak	=	.8000	hrs
Qout+Infilt. Centroid	=	16.3297	hrs
Inflow Centroid	=	15.0467	hrs
Centroid to Centroid	=	1.2830	hrs
Weighted Avg. Plug Time	=	1.2980	hrs
Max.Plug Vol. Plug Time	=	.8410	hrs
Max.Inflow Plug Volume	=	.853	ac-ft (From 12.5000 to 12.6000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #2 OUT
HYG Tag = Pre.25

Peak Discharge =	71.51 cfs
Time to Peak =	13.3000 hrs
HYG Volume =	25.240 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
7.5000	.00	.00	.00	.00	.01
8.0000	.01	.02	.03	.04	.06
8.5000	.07	.10	.12	.15	.19
9.0000	.23	.25	.28	.32	.36
9.5000	.40	.44	.49	.54	.60
10.0000	.66	.71	.76	.81	.88
10.5000	.95	1.05	1.16	1.29	1.39
11.0000	1.51	1.65	1.82	2.02	2.23
11.5000	2.48	2.79	3.25	3.96	5.25
12.0000	7.63	11.79	16.11	19.37	22.84
12.5000	26.21	29.23	32.43	42.62	53.07
13.0000	61.31	66.91	70.19	71.51	71.30
13.5000	69.96	67.74	64.96	61.89	58.70
14.0000	55.59	52.61	49.80	47.18	44.76
14.5000	42.55	40.52	38.66	37.03	35.56
15.0000	34.22	33.13	32.18	31.47	31.05
15.5000	30.76	30.43	30.09	29.73	29.37
16.0000	28.99	28.61	28.20	27.79	27.37
16.5000	26.95	26.52	26.09	25.67	25.24
17.0000	24.82	24.40	23.98	23.56	23.15
17.5000	22.74	22.33	21.93	21.53	21.14
18.0000	20.76	20.38	20.01	19.64	19.28
18.5000	18.92	18.57	18.23	17.89	17.56
19.0000	17.22	16.90	16.58	16.26	15.95
19.5000	15.65	15.35	15.05	14.67	14.21
20.0000	13.75	13.18	12.66	12.18	11.74
20.5000	11.33	10.96	10.62	10.30	10.00
21.0000	9.73	9.47	9.24	9.02	8.82
21.5000	8.62	8.44	8.28	8.13	7.98
22.0000	7.85	7.73	7.61	7.50	7.39
22.5000	7.30	7.21	7.12	7.04	6.97
23.0000	6.90	6.83	6.77	6.71	6.66
23.5000	6.61	6.56	6.51	6.46	6.42

LEVEL POOL ROUTING SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre100
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre100

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

INITIAL CONDITIONS

Starting WS Elev	=	521.80 ft
Starting Volume	=	.000 ac-ft
Starting Outflow	=	.00 cfs
Starting Infiltr.	=	.00 cfs
Starting Total Qout	=	.00 cfs
Time Increment	=	.1000 hrs

INFLOW/OUTFLOW HYDROGRAPH SUMMARY

Peak Inflow	=	154.58 cfs	at	12.5000 hrs
Peak Outflow	=	119.06 cfs	at	13.0000 hrs
Peak Elevation	=	525.13 ft		
Peak Storage	=	7.098 ac-ft		

MASS BALANCE (ac-ft)

+ Initial Vol	=	.000
+ HYG Vol IN	=	36.856
- Infiltration	=	.000
- HYG Vol OUT	=	36.856
- Retained Vol	=	.000
Unrouted Vol	=	-.000 ac-ft (.000% of Inflow Volume)

DETENTION TIMES SUMMARY

HYG Dir = J:\0675B\PONDPACK\
Inflow HYG file = EX-PERS.HYG - EX. LAKE #2 IN Pre100
Outflow HYG file = EX-PERS.HYG - EX. LAKE #2 OUT Pre100

Pond Node Data = EX. LAKE #2
Pond Volume Data = POND2
Pond Outlet Data = POND2-EXIST

No Infiltration

APPROXIMATE DETENTION TIME

Tp, Outflow + Infilt.	=	13.0000 hrs	
Tp, Total Inflow	=	12.5000 hrs	
Peak to Peak	=	.5000 hrs	
Qout+Infilt. Centroid	=	16.1280 hrs	
Inflow Centroid	=	14.9800 hrs	
Centroid to Centroid	=	1.1479 hrs	
Weighted Avg. Plug Time	=	1.1594 hrs	
Max.Plug Vol. Plug Time	=	.6368 hrs	
Max.Inflow Plug Volume	=	1.268 ac-ft	(From 12.4000 to 12.5000 hrs)

POND ROUTED TOTAL OUTFLOW HYG...
HYG file = J:\0675B\PONDPACK\EX-PERS.HYG
HYG ID = EX. LAKE #2 OUT
HYG Tag = Pre100

Peak Discharge =	119.06 cfs
Time to Peak =	13.0000 hrs
HYG Volume =	36.856 ac-ft

HYDROGRAPH ORDINATES (cfs)
Output Time increment = .1000 hrs
Time on left represents time for first value in each row.

Time hrs					
6.3000	.00	.00	.00	.00	.01
6.8000	.01	.02	.03	.04	.06
7.3000	.07	.10	.13	.16	.19
7.8000	.23	.25	.28	.31	.35
8.3000	.39	.43	.47	.51	.56
8.8000	.61	.67	.72	.76	.81
9.3000	.88	.95	1.04	1.13	1.25
9.8000	1.34	1.43	1.54	1.65	1.78
10.3000	1.93	2.08	2.24	2.41	2.61
10.8000	2.82	3.09	3.39	3.72	4.12
11.3000	4.58	5.10	5.72	6.49	7.51
11.8000	9.04	11.69	15.33	18.37	22.37
12.3000	26.94	31.54	52.65	77.51	96.87
12.8000	109.40	116.21	119.06	119.02	117.04
13.3000	113.68	109.31	104.27	98.73	92.98
13.8000	87.28	81.75	76.56	71.77	67.37
14.3000	63.36	59.69	56.36	53.31	50.55
14.8000	48.07	45.85	43.82	41.98	40.34
15.3000	38.80	37.47	36.22	35.14	34.10
15.8000	33.26	32.43	31.87	31.31	31.05
16.3000	30.82	30.56	30.28	29.99	29.70
16.8000	29.40	29.10	28.79	28.47	28.14
17.3000	27.80	27.46	27.13	26.79	26.45
17.8000	26.11	25.78	25.45	25.12	24.80
18.3000	24.48	24.15	23.83	23.52	23.21
18.8000	22.90	22.60	22.30	21.99	21.70
19.3000	21.40	21.11	20.82	20.54	20.25
19.8000	19.97	19.68	19.40	19.12	18.85
20.3000	18.57	18.29	18.02	17.75	17.49
20.8000	17.22	16.96	16.70	16.44	16.19
21.3000	15.95	15.70	15.47	15.23	15.01
21.8000	14.70	14.35	14.02	13.64	13.24
22.3000	12.86	12.52	12.20	11.92	11.65
22.8000	11.40	11.17	10.95	10.76	10.57
23.3000	10.40	10.23	10.08	9.93	9.79
23.8000	9.66	9.53	9.41	9.30	9.18
24.3000	9.04	8.87	8.66	8.40	8.12